Inspection and Grading of Meat

Meat is one of the costliest items on the menu—but also one of the most potentially profitable. To get the most value from the meat you buy, it is important to understand how to receive, store, and prepare it properly. However, before you can begin this process, you need to understand the inspection and grading process for meat.

Meat Inspection Government inspection of all meat (including game and poultry) is required. In fact, inspections are required at various times—on the farm or ranch, at the slaughterhouse, and again after butchering. Most meat is inspected by federal inspectors. States that have their own meat inspections must meet or exceed federal standards. Both federal and state inspections are paid for with tax dollars.
Federal and state inspectors ensure that:

- Animals are free from disease.
- Farms are operated according to appropriate standards for safety, cleanliness, and health.
- Meat is wholesome and fit for human consumption.

**Quality Grading** Quality grading, unlike inspection, is voluntary. The US Department of Agriculture (USDA) has developed specific standards that are used to assign grades to meat based on its quality. The USDA also trains graders, ensuring that quality standards are consistent across the country. Because quality grading is voluntary, the individual meat packer—not the taxpayer—absorbs the cost involved in grading meat. Packers may choose not to hire a USDA grader to assign a quality grade. Instead, packers may assign grades based on their own standards. However, those standards must meet or exceed federal standards.

The grade placed on a particular carcass is applied to all the cuts from that particular carcass. Quality graders consider the following (adjusting the standards according to the type of meat being graded):

- The overall shape of the carcass
- The ratio of fat to lean meat
- The ratio of meat to bone
- The color of the meat
- The amount of fat present in the lean flesh (this is known as *marbling* in beef)

**Butchering** After slaughtering, inspection, and grading, a large animal carcass is butchered. It is first cut into manageable pieces. The exact standards for individual animal types govern where the cuts are made. There are typically two ways to cut up a carcass:

- **Sides and Quarters.** The first cuts made in this type of butchering divide the carcass into sides and then into quarters. Sides are prepared by making a cut down the length of the backbone. Quarters are made by cutting sides into two pieces and dividing them at specific points. The front quarter is called the *forequarter*. The rear quarter is called the *hindquarter*. Larger carcasses, such as those of beef and pork, are usually cut up this way.

- **Saddles.** This type of butchering divides the carcass into two portions by cutting across the belly. Each portion includes the left and right side of the carcass. Whenever a portion includes both the left and right side of the carcass, the portion is called a *saddle*. The front portion of the carcass is called the *fore-saddle*. The rear portion is called the *hindsaddle*. Smaller carcasses, such as veal, are often cut up this way.
The next step is to cut the quarters or saddles into **primal cuts** (or, as they are sometimes referred to, primals). These are portions that meet uniform standards for beef, veal, pork, and lamb. Primal cuts are then broken down into **subprimal cuts** (or subprimals).

Subprimals can be trimmed, packed, and then sold to restaurants or butcher shops. A restaurant buying a subprimal would need to do additional butchering to break down the subprimal into portion-sized cuts of meat. This type of butchering is called **fabrication**.

Increasingly, however, subprimals are broken down at the packing plant and sold in smaller pieces, referred to as **retail cuts**.

Most food-service establishments buy boxed meat. **Boxed meat** is meat that is fabricated to a specific point (such as primal, subprimal, or retail cuts) and then packed and boxed. At that point, as boxed meat, it is ready to ship for sale to restaurants, butchers, and retail outlets.

### Common Retail Cuts

<table>
<thead>
<tr>
<th>Retail Cut</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Steak</strong></td>
<td>Portion-sized cut, with or without the bone, that typically includes well-defined portions of lean meat and fat; dry heat methods for cooking.</td>
</tr>
<tr>
<td><strong>Roast</strong></td>
<td>Large, multi-portion cut intended for roasting or braising.</td>
</tr>
<tr>
<td><strong>Chop</strong></td>
<td>Portion-sized cut that often includes a portion of the rib; both dry heat and moist heat are used.</td>
</tr>
<tr>
<td><strong>Cutlet</strong></td>
<td>Thin, tender, boneless portion-sized cut, often taken from the leg or rib; typically requires dry heat methods.</td>
</tr>
<tr>
<td><strong>Medallion</strong></td>
<td>Small, round or oval, portion-sized cut often from the rib or loin; typically requires dry heat methods.</td>
</tr>
<tr>
<td><strong>Noisette (nwaZEH)</strong></td>
<td>Small, tender, round portion-sized cut, usually from the rib or loin; typically requires dry heat methods.</td>
</tr>
<tr>
<td><strong>Emince (EH-manss)</strong></td>
<td>Small, thin, portion-sized cut; typically requires dry heat methods.</td>
</tr>
<tr>
<td><strong>Stew Meat</strong></td>
<td>Small chunks, typically .75 to 1.5 inch, of relatively lean meat cut from a variety of the primal cuts; used for stewing.</td>
</tr>
<tr>
<td><strong>Ground Meat</strong></td>
<td>Ground meat, including some percentage of fat, from various primals; also referred to as hamburger and minced beef.</td>
</tr>
</tbody>
</table>

**Figure 16-1**

*Butchered Sides of Beef*

The grade placed on a carcass is applied to all the cuts from that particular carcass.

**Drawing Conclusions** Why would a restaurant use retail cuts rather than fabricating cuts from a carcass?
Types and Cuts of Meat

The flavor, color, and texture of any meat are influenced by several factors: the amount of exercise the muscle receives, the animal’s age, the type of feed it received, and its breed.

**Beef** The animals used in the beef industry are typically young males (steers) and females (heifers). The older the animal, the less tender the meat.

Specialty beef is available from other countries, such as Kobe (KOH-bay) beef from Japan and Limousin (lee-MOO-zan) beef from France. Specialty beef from the United States includes Certified Angus, natural beef, and organic beef.

Beef may be **aged**, a process that gives meat a darker color, a more tender texture, and a fuller flavor. Boneless cuts such as steaks may be vacuum-packaged and stored under refrigeration for several weeks, a process referred to as **wet aging**. **Dry aging** calls for the side, forequarter, or hindquarter to be hung in a climate-controlled area. Aged beef is expensive due to additional processing costs as well as the significant moisture and weight loss that reduce the ultimate yield.

There are eight USDA (US Department of Agriculture) grades of beef. From the highest to the lowest quality, they are Prime, Choice, Select, Standard, Commercial, Utility, Cutter, and Canner. The top three grades, Prime, Choice, and Select, come from younger beef. Grades lower than Select are generally used for processed meat, such as frankfurters, and are not used in the restaurant or retail industry. The grades most widely sold retail are Choice and Select.

- **USDA Prime.** Only a small percentage of beef is graded Prime. This grade is usually reserved for hotels, restaurants, and butcher shops. Prime beef is the most tender, juicy, and flavorful. It has abundant marbling, which enhances both flavor and juiciness. Prime roasts and steaks are excellent for dry cooking methods (roasting and broiling).

- **USDA Choice.** The most popular quality and the most widely sold grade in retail stores. Choice beef is very tender, juicy, and flavorful. It has less marbling than Prime.

- **USDA Select.** Very uniform in quality, Select beef is gaining in consumer popularity because it is leaner than the higher grades (it has less marbling). Not as juicy or flavorful as Prime or Choice, Select beef is often marinated before cooking or cooked by using moist heat methods.

A beef forequarter contains four primal cuts: the chuck (shoulder), the rib, the brisket and foreshank, and the short plate. The hindquarter also
contains four primal cuts: the loin, the sirloin, the flank, and the round (leg). These primal cuts may be sold individually, or, as is more often the case, they are broken down into subprimal cuts or retail cuts.

![Diagram of beef primal cuts]

**Figure 16-2**

Beef Primal Cuts
Both the forequarter and the hindquarter are broken into four primal cuts each.

Relating Concepts Have you ever seen one of these cuts in a butcher shop or grocery store?

The following list summarizes the cooking methods and uses for the eight beef primal cuts.

- **Chuck (Shoulder).** Moist heat and combination cooking methods are appropriate for cuts from the chuck primal, which usually need long, slow cooking. The meat is sold as roasts (bone-in or boneless) or cut into steaks. Chuck is often used for stew meat and ground beef.

- **Rib.** Roasting, grilling, broiling, and sautéing are the most common cooking methods for most cuts from the primal rib. The rib is often sold whole. It is also sold in smaller roasts (bone-in and boneless), or cut into steaks such as rib eye steaks.

- **Bristet and Foreshank.** The brisket is typically braised. It is also used to make corned beef. When cured and smoked, it is used to make pastrami. The foreshank is typically braised or used in stews.

- **Short Plate.** This primal cut is under the primal ribs. Short ribs and skirt steak are fabricated from the short plate. Short ribs are often braised, while the skirt steak is cooked with dry heat methods, such as grilling.
• **Loin (Short Loin).** The front portion of the loin contains some very tender meat. Most cuts are sold as whole roasts (which are roasted or braised) or steaks (which are grilled). The loin produces a variety of retail cuts, including T-bone steaks, strip loin steaks (also known as Delmonico steaks or strip steaks), filet mignon (FEE-lay me-NYON), tournedos (TOUT-nah-doughs), and tenderloin tips.

• **Sirloin.** The sirloin contains a portion of the tenderloin. Other than the tenderloin, sirloin meat is generally less tender than meat from the loin. Sirloin butt is a moderately tough retail cut. Roasting, grilling, broiling, and sautéing are the most common cooking methods for sirloin cuts.

• **Flank.** Flank steak is below the loin and is almost always sold whole. Flank steak can be grilled, but it is also often braised, sometimes with a stuffing.

• **Round (Leg).** The most common cooking methods for cuts from the round are braising and stewing. Two portions of the round, the knuckle and the eye of the round, can be roasted. Cuts from the round are often made into cubes for stew meat or kebabs. Meat from the bottom round is often ground.
Kitchens also use cuts other than those from primal cuts. These cuts include organs, such as the liver, as well as some muscles—the tongue, for example. Overall, this type of meat is known as **variety meat**, or as **offal** (AH-full).

### Beef Variety Meat

<table>
<thead>
<tr>
<th>Variety Meat</th>
<th>Common Culinary Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liver</td>
<td>Sautéed or ground to make pâté or sausages</td>
</tr>
<tr>
<td>Tripe (Stomach Lining)</td>
<td>Simmered or braised</td>
</tr>
<tr>
<td>Kidneys</td>
<td>Sautéed, stewed, or braised</td>
</tr>
<tr>
<td>Tongue</td>
<td>Simmered; also often pickled or smoked</td>
</tr>
<tr>
<td>Oxtail</td>
<td>Simmered, stewed, or braised</td>
</tr>
<tr>
<td>Intestines</td>
<td>Used as large sausage casings</td>
</tr>
<tr>
<td>Heart</td>
<td>Simmered, braised, or stewed</td>
</tr>
</tbody>
</table>

**Veal**  
Veal comes from a young calf, generally two to three months old. It has delicate, tender flesh that is pale pink in color. Milk-fed veal is no more than 12 weeks old at the time of processing. Veal of this age has received mother’s milk or formula only. Formula-fed veal may be up to four months old, but the calf’s diet contains no grass or feed.

There are six USDA grades of veal: Prime, Choice, Good, Standard, Utility, and Cull. Only Prime and Choice are used in the restaurant industry or purchased retail. Prime has abundant marbling and is generally very juicy and tender. Choice is somewhat less juicy, less flavorful, and with less marbling.

Veal is usually cut into a fore saddle and a hindsaddle, but it can be split into two sides, similar to beef. The primal cuts for veal are the shoulder (also known as the chuck), shank, rack (or rib), breast, loin, and leg. Variety meat from veal is highly prized, especially the sweetbreads, liver, calf’s head, and brains.

The following list summarizes the cooking methods and uses for the six veal primal cuts.

- **Shoulder (Chuck).** Moist heat or combination cooking methods, such as stewing, simmering, and braising, are appropriate for roasts from the shoulder primal. Stew meat and ground meat are commonly made from less desirable cuts.
Figure 16-3  
Veal Primal Cuts
The foresaddle is broken into four primal cuts, but the hindsaddle is broken into only two primal cuts. **Comparing/Contrasting How are veal primals different from beef primals?**

- **Rib (Rack).** Ribs can be roasted whole (both bone-in and boneless) or they may be broken down into individual chops and cooked by using dry heat cooking methods. A **crown roast** is prepared by tying a rib roast into a crown-shape.
- **Shank.** Meat from the shank is often braised. The meaty shank is used to prepare osso bucco (AW-soh BOO-koh), an Italian method of braising veal shanks with aromatic vegetables.
- **Breast.** The breast (bone-in or boneless) is often stuffed and rolled, before being braised or slowly roasted.
- **Loin.** Prized for its tender meat, the meat of the loin has an even texture. Cuts from the loin are very tender and are suitable for dry heat techniques such as roasting, grilling, broiling, and sautéing. Whole roasts (bone-in), chops, and boneless portion-sized cuts are available. Bones for the roasts or chops
are often scraped clean before they are cooked, a technique known as frenching.

**Leg.** Veal legs may be purchased whole and then broken down into their smaller pieces. A sub-primal cut from the leg is the top round. Veal from the top round has the best texture and cooks the most evenly.

### Veal Variety Meat

<table>
<thead>
<tr>
<th>Variety Meat</th>
<th>Common Culinary Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweet Breads (Pancreas or Thymus Gland)</td>
<td>Poached or sautéed</td>
</tr>
<tr>
<td>Tongue</td>
<td>Poached, simmered, or braised (and may be pickled or smoked)</td>
</tr>
<tr>
<td>Cheeks</td>
<td>Typically braised</td>
</tr>
<tr>
<td>Liver</td>
<td>Sautéed or used to make terrines and pâtés</td>
</tr>
<tr>
<td>Heart</td>
<td>Simmered or braised</td>
</tr>
<tr>
<td><strong>Kidneys</strong></td>
<td>Sautéed, braised, or stewed</td>
</tr>
<tr>
<td>Feet</td>
<td>Simmered (feet are often used to give stocks body)</td>
</tr>
</tbody>
</table>

**Pork** Pork, the meat of domesticated pigs, is some of the most popular meat sold in the United States. Pigs have been specifically bred over many generations to produce the leaner cuts of meat sold today. Pigs are commonly slaughtered when they are most tender, under the age of 12 months.

The USDA grades for pork reflect two quality levels: Acceptable and Utility. Within the Acceptable grade, there are four grades (grades 1 through 4) based on yield. The higher the grade the more meat compared to fat or bone. Generally, a bigger animal has more lean meat. Stores sell only USDA Acceptable, grade 1 or 2 pork. Lower yield or utility grade is mainly used in processed products and is not available in supermarkets. The pork you buy may have quality grades assigned by a meat packer, rather than federal grades. The grading system used by an individual packer must be clearly defined and match or exceed federal standards.

**FOCUS ON SAFETY**

**Certified Pork**

Pork can be contaminated with a parasite. Consuming contaminated pork results in trichinosis, a foodborne illness. Pork can also be contaminated with e. coli, salmonella, or toxoplasmosis. Pork labeled “certified pork” has been tested not only for safety, but also for quality and the animals’ living conditions.
The pork carcass is split into two halves along the backbone, like beef. However, then it is divided in a slightly different manner from most other meat. Instead of dividing the rib and loin into two portions, the rib and loin are left together in one long primal loin. Other primal cuts include the Boston butt, shoulder, belly, and ham.

**Figure 16-4**

Pork Primal Cuts
The pork loin is left long.
Comparing/Contrasting How is the pork loin different from loins from other animals?

The following list summarizes the cooking methods and uses for the five pork primal cuts.

- **Boston Butt.** This primal cut (bone-in or bone-out) often has regional names, such as daisy ham or cottage butt. Boston butt is used to prepare a specialty ham known as tasso (TA-soh). Common cooking methods for the Boston butt include roasting, sautéing, and stewing. It may also be cured or smoked. The smoked version is also known as English bacon.

- **Shoulder.** This primal pork cut is most suitable for stewing and braising (but may, because of the relatively high fat content, be roasted with some success). It is also used for ground pork. Because of the relatively high fat ratio, the shoulder is often used to make sausages. The shoulder is sometimes known as a picnic ham.

- **Loin.** Cuts from the pork loin are tender and suitable for dry heat and quick cooking methods such as roasting, grilling, broiling, sautéing, and pan frying. The meat is sold as whole roasts (bone-in and boneless), chops (bone-in or boneless), and cutlets. The loin may be cured or smoked. It is known in the United States as Canadian-style bacon. Baby back ribs are also part of the loin. They are usually slow cooked by braising or barbecuing.
- **Belly.** Bacon is made by curing or smoking the belly. Dry heat methods, including pan broiling, are appropriate for bacon. Spareribs are also cut from the belly. This very popular cut is sold whole or cut into portions.

- **Ham (Leg).** Bone-in or boneless cuts from the ham may be whole roasts, steaks, or portion cuts. Top round is often prepared as thin boneless cuts and sautéed or pan fried. The ham is typically roasted, baked, often with a glaze, or boiled. The shank can be simmered, stewed, or braised. These cuts are often smoked or cured. A ham can be a fresh, cured, or smoked. Prosciutto is **dry cured** (cured by rubbing with salt and often seasonings) and then dried. Smithfield ham is dry cured and then smoked.

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### Pork Variety Meat

<table>
<thead>
<tr>
<th>Variety Meat</th>
<th>Common Culinary Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jowl Bacon</td>
<td>Crumbly form of bacon from the jowl, used for flavoring rather than as slices</td>
</tr>
<tr>
<td>Fatback</td>
<td>Clear fat from the back that has no traces of lean meat; used in pâtés and terrines</td>
</tr>
<tr>
<td>Neckbones</td>
<td>Smoked; used for flavoring in soups, stews, and broths</td>
</tr>
<tr>
<td>Liver</td>
<td>Used for sausages, pâtés, and terrines</td>
</tr>
<tr>
<td>Heart</td>
<td>Simmered, braised, or stewed; used for sausages, pâtés, and terrines</td>
</tr>
<tr>
<td>Intestines</td>
<td>Used for sausage casings</td>
</tr>
<tr>
<td>Kidneys</td>
<td>Simmered, stewed, or braised</td>
</tr>
</tbody>
</table>
**Lamb and Mutton** Lamb is the tender meat produced by young, domesticated sheep. The texture of lamb is a direct result of what the lamb consumes and the age at which it is slaughtered. Milk-fed lamb has the most delicate color and flavor. Grass-fed lamb has a more pronounced flavor and texture. Most lamb produced in the United States is finished on a grain diet and butchered at six to seven months old. The meat from sheep that is over 16 months old is called mutton. Mutton is tougher than lamb and has a strong, gamey taste.

Lamb for the restaurant industry and retail consumption is graded Prime or Choice, with Prime the most tender, juicy, and flavorful. Lower grades (Good, Utility, and Cull) are only used commercially.

Like veal, lamb is usually cut into either a foresaddle and a hind-saddle or into sides. There are five primal lamb cuts: the shoulder, the foreshank and breast, the rib (known also as rack), the loin, and the leg.

The following list summarizes the cooking methods and uses for the five lamb primal cuts.

- **Shoulder.** Common cooking methods include simmering, braising, and stewing. Cuts are sold as roasts and chops, as well as cubed and ground meat. Some boneless cuts may be roasted or grilled.
- **Foreshank and Breast.** The lamb foreshank is usually braised or simmered. The breast can be braised, simmered, broiled, or grilled.
• **Rib (Rack).** The rib is typically roasted, either as a rack, a crown roast, or a bone-in roast. Chops from the ribs are sautéed, broiled, or grilled. Chops may be single or double-boned. Bones may be frenched before cooking. The breast is usually braised or stewed. It may also be cut into small ribs (often called riblets) and barbecued.

• **Loin.** Meat from the loin is tender and best suited to quick-cooking dry heat methods (sautéing, grilling, or broiling) to achieve the best flavor and texture. Whole cuts (bone-in or boneless) are usually roasted. English chops are bone-in and may be a single- or double-bone cut. Saratoga chops are boneless and may also be single- or double-bone cuts. The boneless cuts may be used for cutlets, emince, medallions, or noisettes.

• **Leg.** Some cuts from the leg are tender enough for dry heat methods. Cuts from the leg (sirloin, top round, bottom round, and eye round) can be roasted or braised. The top round is also used to prepare steaks or cutlets. The lamb shank and heel are typically braised, stewed, or simmered. The leg may be butterflied (split down the middle and then spread open) and grilled or stuffed and braised.

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### Lamb Variety Meat

<table>
<thead>
<tr>
<th>Variety Meat</th>
<th>Common Culinary Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tongue</td>
<td>Simmered, often smoked</td>
</tr>
<tr>
<td>Liver</td>
<td>Sautéed; used in pâtés and terrines</td>
</tr>
<tr>
<td>Heart</td>
<td>Simmered, braised, or stewed</td>
</tr>
<tr>
<td>Kidneys</td>
<td>Simmered, braised, or stewed</td>
</tr>
<tr>
<td>Intestines</td>
<td>Used for sausage casings</td>
</tr>
</tbody>
</table>

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Game

Game is a general term for meat of wild mammals and birds. Although the term venison can be used as a general term for large game animals, in the United States venison typically refers to the meat from any member of the deer family, including antelope, caribou, elk, moose, reindeer, red-tailed deer, white-tailed deer, and mule deer. Meat from other popular large game, such as buffalo and wild boar, is usually identified as such in a restaurant.

The most popular small game animal is rabbit. It has mildly flavored, lean, tender meat with a fine texture. A hare is a type of large rabbit and is usually wild. They can weigh from 6 to 12 pounds. A mature rabbit that has been raised commercially for food typically weighs from 3 to 5 pounds, while a young rabbit weighs around 2 1/2 pounds.

Game that is sold in restaurants is typically raised commercially for food. More game meat, and more varieties of game, is now being farm-raised. Most large game animals produce meat that is dark red and very lean. The flavor, color, and texture of the flesh are a direct result of its age and diet as well as the season.

The same general rules that determine how to cook red meat will typically work for venison and other large game:

- Cuts from less exercised portions such as the loin and the rib may be prepared by any technique. Dry heat methods such as grilling or roasting are frequently used.
- Well-exercised areas of the animal, such as the haunch (the hindquarters of a deer, consisting of the leg and the loin), the shank, and the shoulder are best when cooked by moist heat or combination methods. These cuts are also used for preparing pâtés and terrines.

**Reading Checkpoint**

What are the eight beef primal cuts?

**Receiving and Handling Meat**

Meat is quite perishable. When you receive it, check its temperature by inserting a thermometer between packages, but do not puncture the packaging.

- Meat should be received below 41°F.
- Meat that has been subjected to previous temperature abuse will be dry or discolored.
- Look for packaging that is clean and intact.
- Check the temperature inside the storage area of the delivery truck.

At the proper temperature and under optimal conditions, meat holds for several days without noticeable loss of quality. Meat can also be
Home on the Range

For most animals that are raised as food, home on the range means living on a factory farm. The high demand for meat, poultry, and dairy products means that these foods need to be mass produced. For the animals, this means living conditions that are far removed from what nature intended. And for the consumer, it can mean food products of poor nutritional value that might also, over time, pose health problems.

Outdoors. Instead of eating commercially produced grain feed, they are able to graze on grass and plants in a pasture. Their diet is often organic, meaning it is free of pesticides, antibiotics, and hormones.

Pesticides are toxic chemicals sprayed on crops. They are consumed by animals and then in turn consumed by us. Pesticides can impair the immune system and cause diseases. Antibiotics are given to factory-farmed animals to cut down on disease. Overuse of antibiotics can lead to strains of bacteria that are resistant to drugs. Some factory-farmed animals are also fed hormones to make them grow faster, and cows are sometimes given a hormone to produce more milk. There is growing concern that hormone residues in meat and dairy might be harmful to our health, potentially disrupting our own hormone balance.

Free-range animals fed an organic diet are a quality food source. Research shows that free-range chickens have 21% less fat and 28% fewer calories than factory-raised chickens, and are often juicier and tastier. Their eggs have 34% less cholesterol. The meat from cattle raised on grass instead of grain has 4 to 6 times less fat and more essential nutrients, such as omega-3 fatty acids, vitamin E, and beta-carotene.

Although it takes a lot of grass and a lot of land to raise animals naturally, animals that are truly home on the range offer a healthy alternative food source.

Research

Research grass-fed beef. Compare how it differs in nutritional value, consistency, texture, and flavor to conventional beef.

Frozen for longer storage. To keep meat properly chilled and prevent cross-contamination, follow these guidelines:

- Wrap and store meat under refrigeration, below 41°F.
- Hold meat in a separate unit, when possible, or in a separate part of the cooler.
• Place uncooked meat on trays to prevent them from dripping onto other food or onto the floor. Store on the bottom shelf.
• Keep different kinds of meat separated; for example, beef should not come into contact with pork.
• Store vacuum-packed meat directly in its packaging if the packaging has not been punctured or ripped.
• Once meat has been removed from its packaging, rewrap it in air-permeable paper, such as butcher’s paper.
• For meat with a short shelf life (variety meat and uncured pork products), cook as soon as possible.

At what temperature should meat be stored?

Preparing Meat

Meat must be prepared before it is served. Some steps are performed before you cook the meat, and some are done after the meat is cooked, before you serve it to a guest.

Trimming  Chefs refer to the grain of the meat. What they are talking about is the direction that the fibers in the meat are running. Some meat preparation techniques call for meat to be cut across the grain. This means you slice the meat across the fibers. Others techniques call for the meat to be cut with the grain, that is, in the same direction as the fibers.

Some cuts of meat are actually several different muscles. These muscles are connected by a membrane. Chefs refer to these membranes that join the muscles as seams. Cutting along a seam helps separate a large cut into smaller pieces.

Many cuts of meat have fat you should cut away before cooking. Visible, or surface, fat is usually trimmed away. Sometimes, however, you may leave a thin layer of fat to provide natural basting, especially during long slow-cooking methods such as roasting or braising. For sautéing and other quick-cooking methods, you should usually remove the fat completely.

Silverskin is a tough membrane that surrounds some cuts of meat. It gets its name from its somewhat silvery color. Silverskin is likely to shrink when exposed to heat. When it shrinks, it can cause meat to buckle and cook unevenly. So before cooking you should remove any silverskin, along with any gristle or tendons (tough connective tissue that holds muscles onto the bones). As you trim meat and poultry, work carefully to be sure you don’t cut away edible meat.

Cutting and Pounding Cutlets  A cutlet may come from the loin, the tenderloin, or any other sufficiently tender cut of meat, such as the
top round. Based on a restaurant’s theme or style of menu, different types of restaurants will use different words for a cutlet. Some of the more common terms for a cutlet are scallop; scaloppine (skol-a-PEE-ne), typically used in Italian restaurants; and escalope (eh-SKAL-ohp) used in French restaurants.

Cutlets are pounded to make sure they have an even thickness over their entire surface. This allows them to be rapidly sautéed or pan fried. When you make cutlets you need to adjust the weight of the mallet and strength of the blow to match the meat. Veal cutlets require a more delicate touch than pork cutlets, for example.

**Basic Culinary Skills**

**Making Cutlets**

1. **Trim meat** completely. Remove all visible fat, tendons, gristle, and silverskin.
2. **Cut pieces** of the same thickness and weight (generally ranging from 1 to 4 ounces).

3. Place meat between two layers of plastic wrap.
4. **Pound meat**. Use a pounding and pushing motion to pound cutlets to an even thickness over their entire surface. Do not tear or overstretch the meat.

5. Arrange pounded cutlets on parchment-lined sheet pan. Keep well chilled until ready to cook.

**Preparing Meat for Stewing or Grinding** It is usually best to cube meat that you intend to use for stewing or for grinding. This meat is usually tougher and fattier than other meat.

For both stew meat and meat you will be grinding, remove the surface fat and any large pockets of fat. Cut meat along seams. Remove silverskin, tendons, and gristle. Cut meat into cubes of relatively even size and shape. To make meat more tender in a stew, cut against the grain. To prepare meat you will be grinding, make sure your cubes are small enough to slide easily through the feed tube of a grinder.
**Grinding Meat**  Grinding meat calls for scrupulous attention to safe food-handling practices. Observe the following procedures for best results:

- Clean the grinder well and put it together correctly. Make sure the blade is sitting flush against the die. In this position, the blade cuts the food neatly rather than tearing or shredding it.
- Chill all grinder parts that will come in contact with the meat by either chilling them or putting them in an ice bath. Grind the meat into a stainless steel bowl that is placed in a larger bowl of ice.
- Do not force the meat through the feed tube. If the pieces are the correct size, they will be drawn through the tube easily.
- Be sure the blade is sharp. Meat should be cut cleanly, never mangled or mashed, as it passes through the grinder.
- For all but very delicate meat (for example, some types of organ meat), begin with a die that has large openings. The ground meat will appear quite coarse. The lean meat and fat will be visible as separate components in the ground meat.
- Continue to grind through progressively smaller dies until the desired consistency is achieved. The coarse appearance of the meat starts to become finer as the lean meat and fat blend.

![Grinding Meat](image)

**Figure 16-6**  Grinding Meat
Start grinding meat with a die that has large openings.

**Relating Concepts**  Why would you put the bowl of ground meat in a bowl of ice?
**Tying a Roast**

1. Cut lengths of string long enough to wrap completely around the meat twice.
2. Pass one length of string around the meat and cross one end over the other end.
3. Make a loop by passing one end around the index finger of one hand.
4. Pass the string underneath itself.
5. Push the end of the string through the opening where your fingertip was.
6. Pull both ends of the string to tighten until the string is pressing firmly against the meat.
7. Loop one end of the string completely around your thumb and forefinger and pull the other end of the string through the loop.
8. Pull both ends of the string to tighten securely. Trim any long strings so the knots are neat.
9. Repeat. Tie lengths of string at even intervals until the entire piece of meat is securely tied.
**Tying a Roast** Tying a roast with secure knots that have the right tension is one of the simplest and most frequently required types of meat fabrication. It ensures that the roast will be evenly cooked and that it will retain its shape after roasting.

**How do you make cutlets?**

### 16.1 ASSESSMENT

**Reviewing Concepts**

1. What is a primal cut?
2. What are the eight beef primal cuts?
3. At what temperature should meat be stored?
4. How do you make cutlets?

**Critical Thinking**

5. **Recognizing Patterns** Which animal doesn’t have a primal rib cut?
6. **Drawing Conclusions** What advantages does specifying the primal cuts offer to meat packagers, butchers, restaurants, and diners?
7. **Comparing/Contrasting** Compare the appropriate cooking methods for similar primals in two different animals (for example, compare the cooking methods used for beef and veal shoulders, or pork loin and lamb loin).

### Test Kitchen

Divide into four teams. Each team will cook patties of a different ground meat, using only salt and pepper as seasonings. Grill or sauté patties to a safe temperature for the meat you are cooking (temperatures will vary). Evaluate the differences between the various types of meat.

### Mad Cow Disease

Research Mad Cow Disease. Write a report on the disease, identifying its causes and the effect it has on humans. Discuss the efforts to keep Mad Cow Disease out of national food chains.