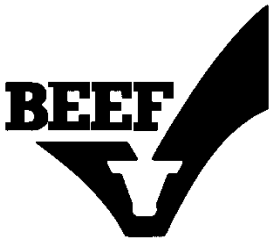
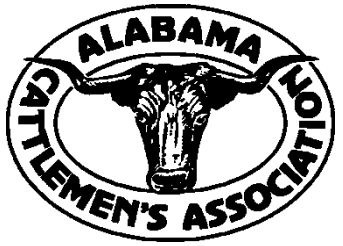
Basics About Beef

A basic overview of the beef carcass and how cookery methods can affect the overall beef eating experience





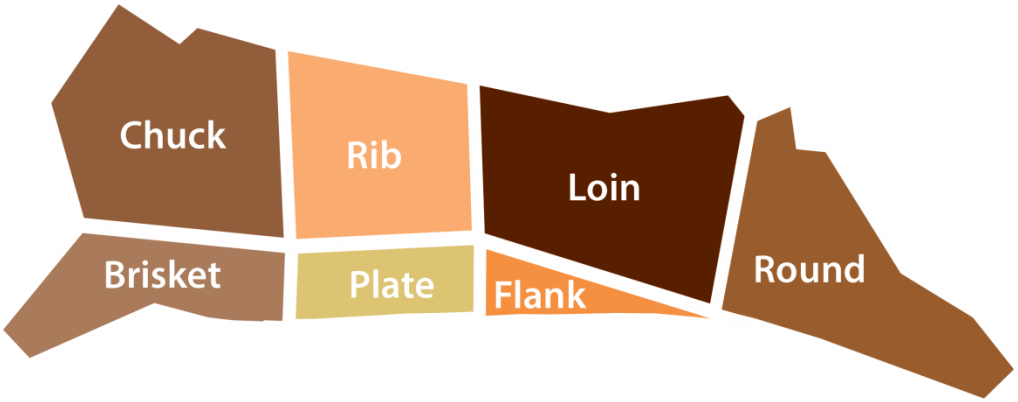
How Does Beef Get to My Plate?

What Is Meat?

- A carcass is made up of four major tissues: muscle, fat, bone and connective tissue.
- When we refer to meat, we are talking about muscle -the most visible component of meat.
- Lean meat is about 72% water, 20% protein and approximately 7% fat.

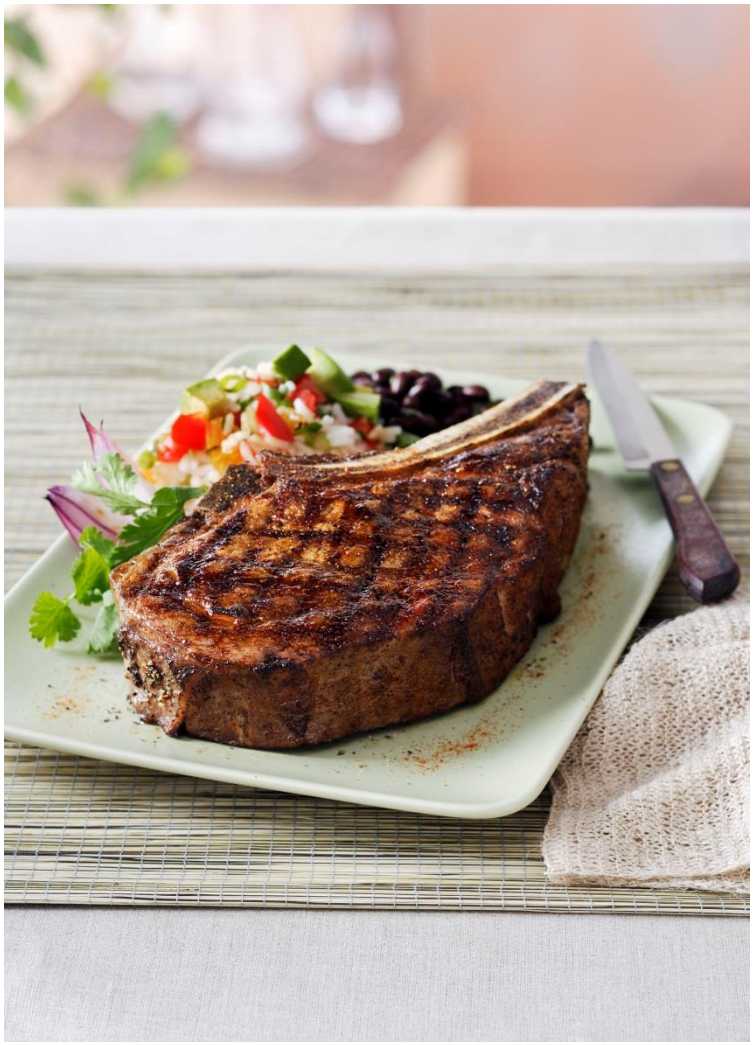
Beef Basics

- Beef animal
  - Fattens from the front to back
  - Leaner cuts from LOIN and ROUND
- Wholesale/Primal Cuts
  - Tougher cuts with more connective tissue from Chuck, Round and Brisket (locomotive muscles)
  - Tender cuts from Rib and Loin (suspension muscles)



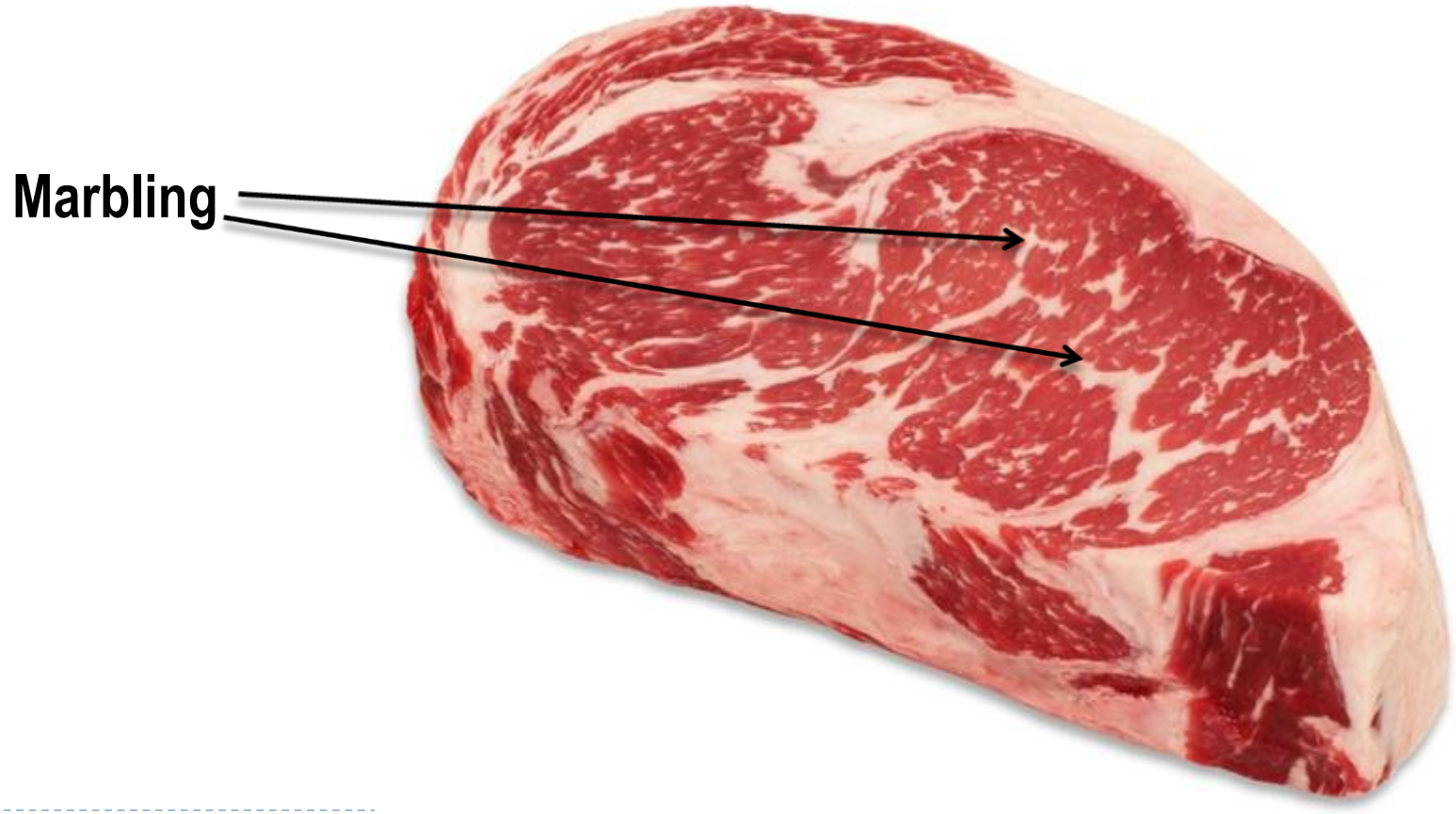
Beef Quality

- What Makes Beef Taste and Look Appealing?
  - Flavor
  - Tenderness
  - Beef Color



Marbling

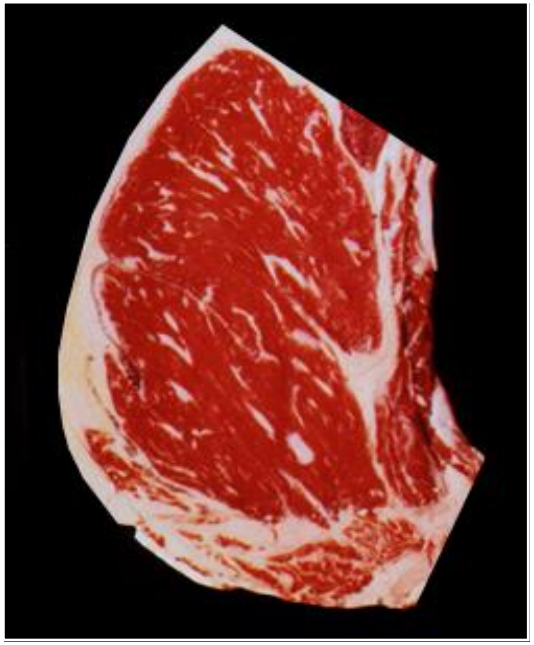
- White flakes of intramuscular fat within the lean of the steak



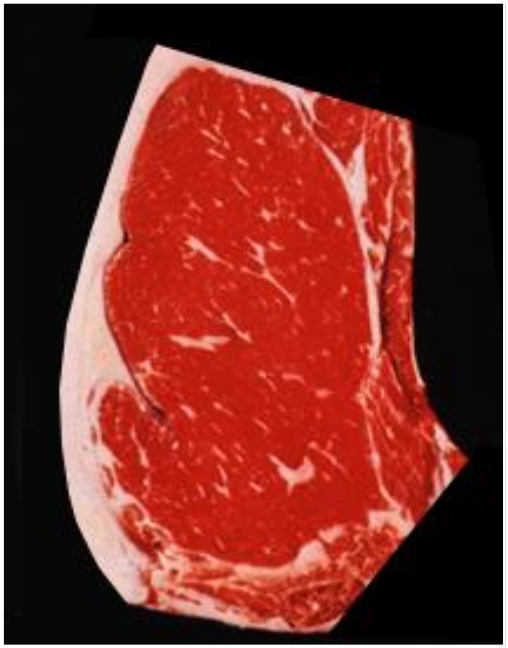
USDA Quality Grades

- Quality grades are assigned to carcasses to provide an estimation of beef palatability

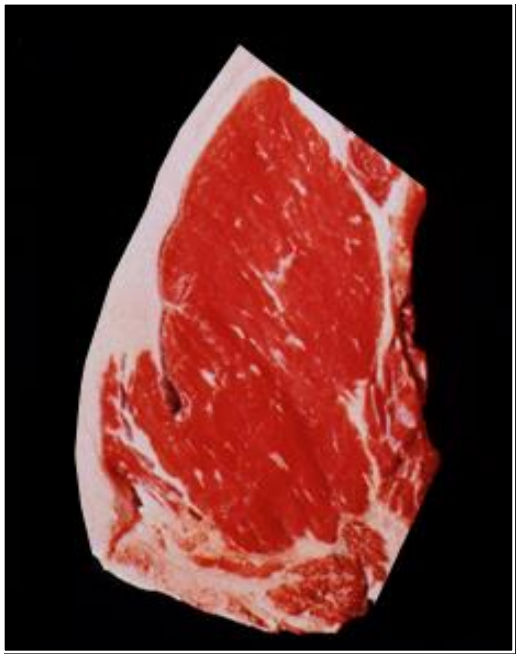
Prime



Choice



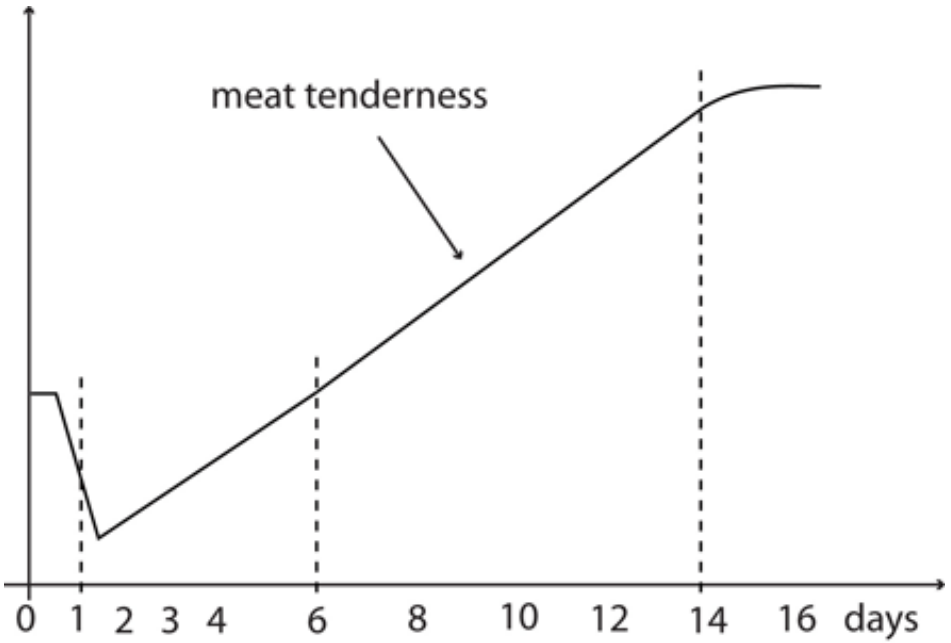
Select



Prime, Choice and Select are the top Quality Grades but there are 5 other Quality Grades

Tenderness

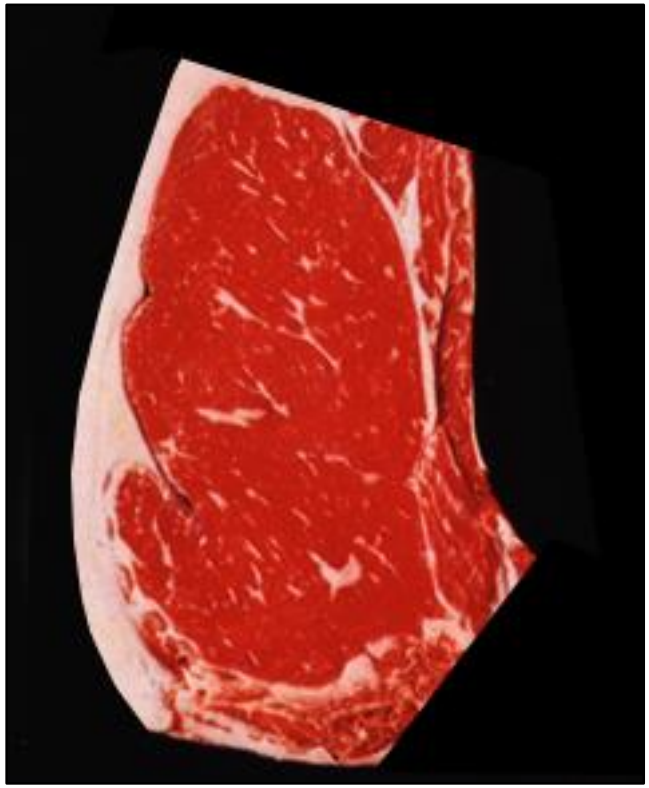
- Aging
  - The aging process increases tenderness in beef by breaking down the muscle
  - Beef is normally aged 14-17 days



The Color of Beef

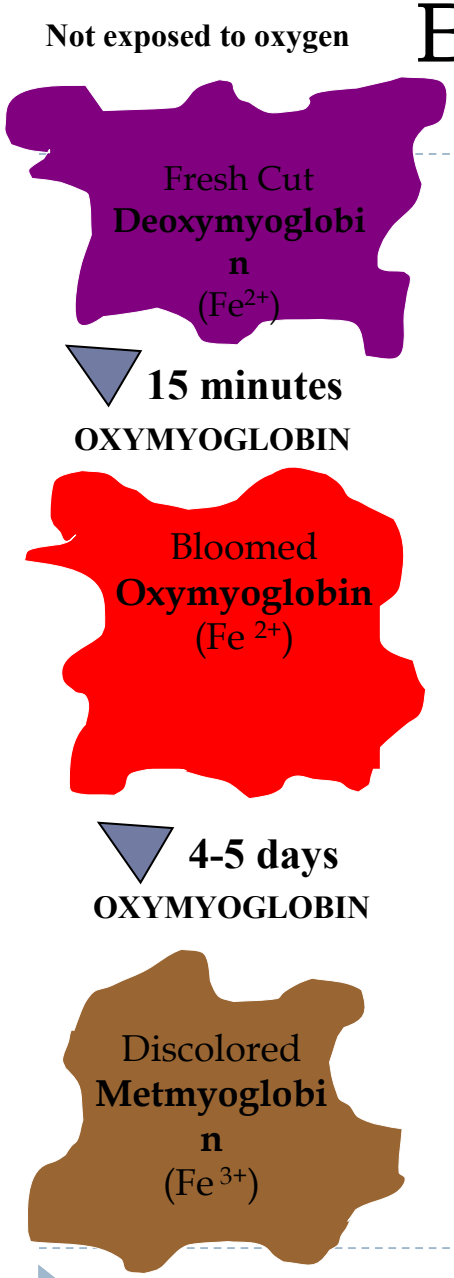
Color is the single most important quality affecting merchandising – less stable than odor!

- Myoglobin is a protein in muscles, similar to hemoglobin, the oxygen-carrying protein in blood
- Various amounts give meats their distinctive colors
- It is greater in beef than in pork, than in poultry
- It is also greater in older than in younger animals



Ideal Color: Bright Cherry Red

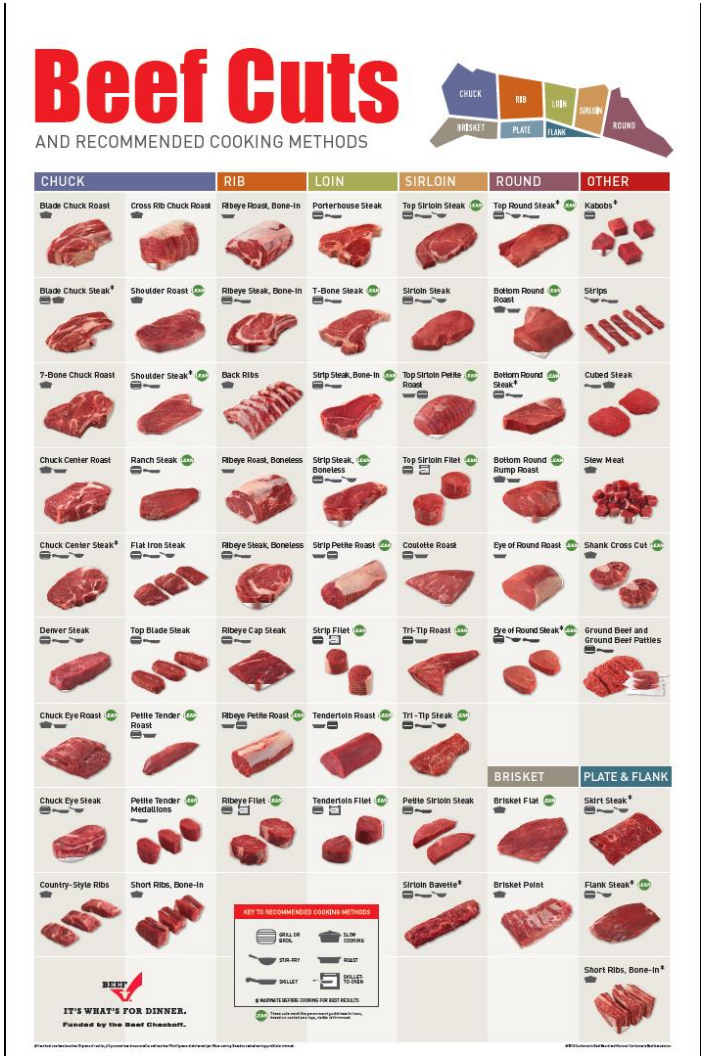
Beef Color: Oxygen & Color



- **Red color**
- **Will recognize a color change with vacuum-packaged beef cuts**
  - **Sealed bag, color appears purple-red**
  - **Opened bag, "blooms" to a bright, cherry-red**
- **Fresh meat exposed to oxygen for a longer period of time, may change to a "brownish" color**
  - **Chemical change is called oxidation**
- **Color can toggle between purple & red but once it changes to brown, it cannot go back**

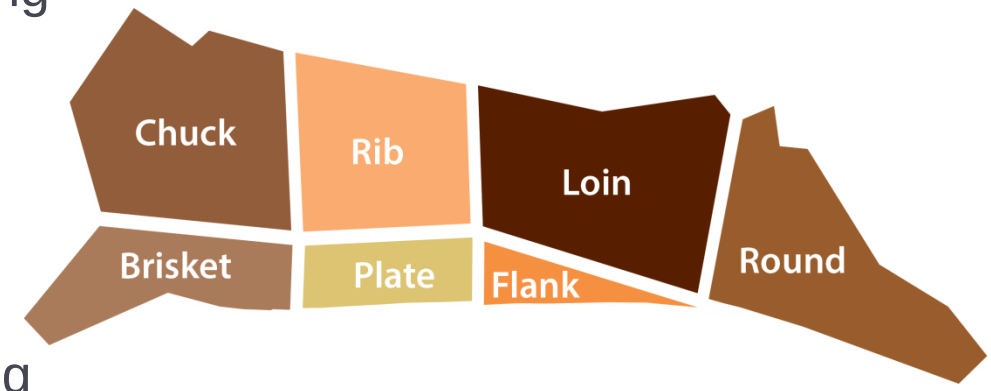
Which Beef Cut Should I Use?

- Can have more than 40 different cuts available plus value-added items
- Determine the occasion
- Match cooking method with cut
  - Less tender – Moist
  - Tender - Dry



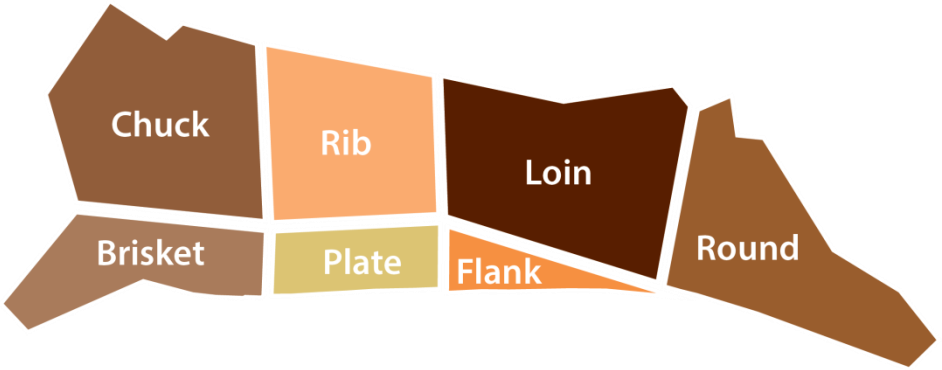
Which Beef Cut Should I Use?

- Chuck
  - Rich beefy flavor
  - Heavily exercised muscles
  - May require moist heat cooking and/or marinating
  - Hidden gems that are tender
- Rib
  - Juicy and flavorful
  - Generous marbling
  - Tender – use dry cooking methods
- Loin
  - Tender
  - Feature many premium steaks and roasts
  - Only by dry heat



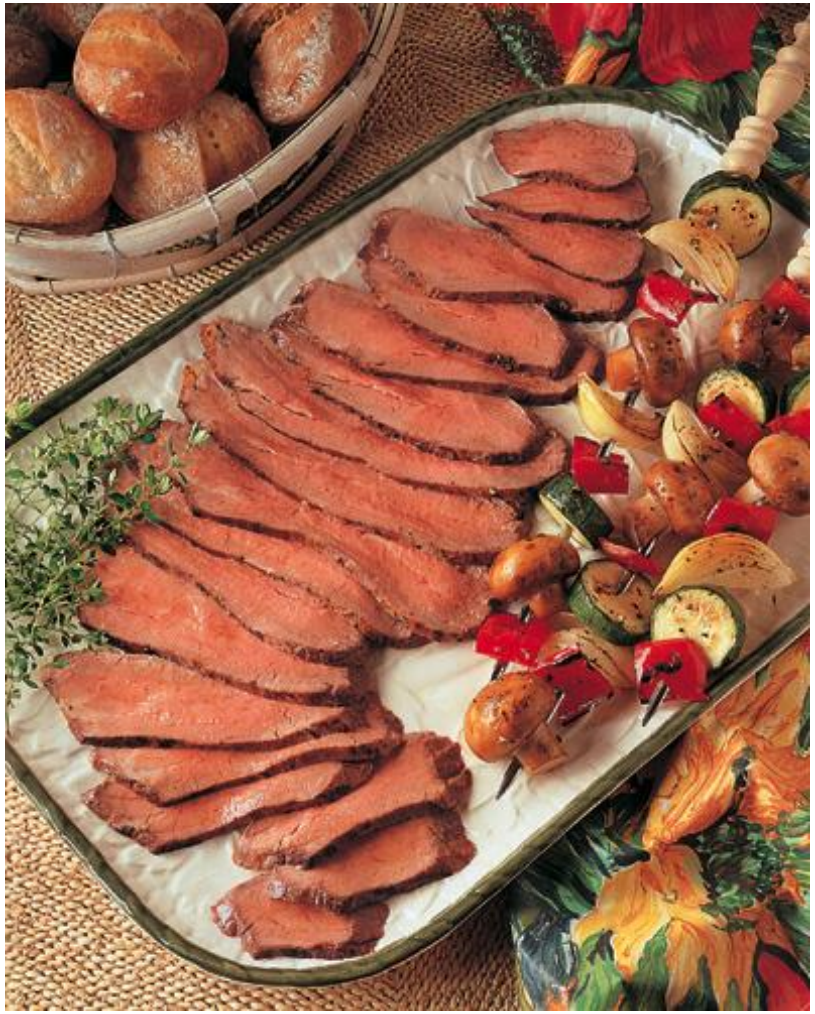
Which Beef Cut Should I Use?

- Round
  - Milder in flavor
  - Usually requires moist heat cooking some can be marinated and dry cooked
  - Contains the leanest beef choices
- Brisket
  - Economical beef cut
  - Best used for braising and stew
  - Cured for corn beef
- Plate/Flank
  - Best when marinated
  - Flank steak good marinated on the grill
  - Skirt steak good marinated and used in fajitas and stir fry



Beef Steaks

- Tender Steaks
  - Dry-heat cooking
  - Usually comes from RIB or LOIN
    - Tenderloin or T-Bone – premium
    - Top Sirloin or Tri-Tip – family priced
- Less Tender Steaks
  - Moist-heat cooking but could be dry after tenderizing
  - Usually from CHUCK and ROUND



Beef Roasts

- Thicker than 2 inches
- Suitable for Dry-heat on rack in roasting pan in oven or covered grill
- Premium roasts for larger gathering -6 oz cooked per serving
- Beef Tri-Tip roast or small beef roast for smaller gathering
- Boneless roast easiest to carve

Pot Roasts

- Contains more connective tissue
- Moist-heat cooking
- Most pot roasts are interchangeable with recipes
  - Chuck Roast
  - Arm Roast

At-Home Beef Storage

- Refrigerate or freeze as soon as possible!
  - Store at temperature of 35◦-40◦ F
- Beef wrapped in transparent film requires no additional wrapping when kept in refrigerator
- Beef in uncoated butcher paper needs to be repackaged in:
  - Heavy-duty aluminum foil
  - Freezer paper
  - Plastic freezer bag
- Ground beef is more perishable than whole beef cuts
- Refrigerate leftover cooked beef within 2 hours after cooking

Storage

- Refrigerating – no need to rewrap
- Freezing – need to wrap in aluminum foil, freezer paper, or freezer bag –remove air

	Type of Beef	Refrigerator (35-40°F)	Freezer (0°F or colder)
Fresh	Steaks Roasts Pot Roasts	3 to 4 days	6 to 12 months
	Beef for Stew, Stir-fry, & kabobs	2 to 3 days	6 to 12 months
	Ground Beef	1 to 2 days	3 to 4 months
Left-over (cooked)	All	3 to 4 days	2 to 3 months

Food Safety

- Natural bacteria are the major cause of food spoilage, foodborne illness
- Bacteria double every 6 hours at 40°F, every hour at 50°F
- Most bacteria invade during processing, handling, preparation
- Safe food handling and storage minimizes risk

Food Safety

- Do not defrost at room temperature
- Cook ground beef immediately after defrosting
- Wash hands and pans with hot, soapy water for 20 seconds
- Refrigerate leftovers within 2 hours after cooking
- Use separate cutting boards and plates

For more information go to
www.safeandsavory160.com

Marinades

- A seasoned liquid mixture that adds flavor or tenderize
  - To tenderize use acidic ingredients
  - Typically only used for beef cuts cooked by dry heat
  - Always marinate in refrigerator
  - Less tender cuts – 6 or more hours (do not exceed 24)
  - Tender cuts- 15 minutes to 2 hours
  - If basting or using at end, reserve before adding meat
  - Allow ¼ to ½ cup marinade for each 1 to 2 lbs of beef

Rubs

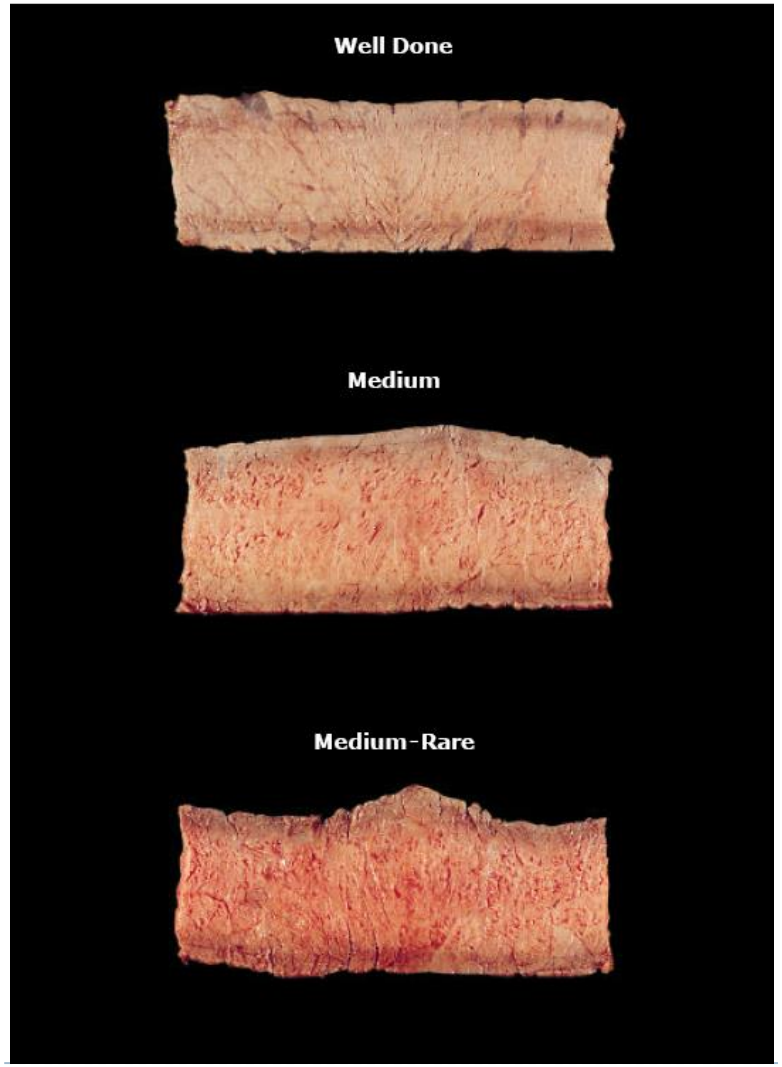
- Blend of seasonings applied to surface before cooking
  - Herbs, spices, and perhaps garlic
  - Paste-type could include small amount of oil, mustard, or other moistening ingredients
  - Adds an outer crust of flavor but does not tenderize

Secrets to Successful Beef Cookery

- Tender cuts – dry and high (medium to medium high) heat
- Less Tender cuts – moist, slow, and low heat

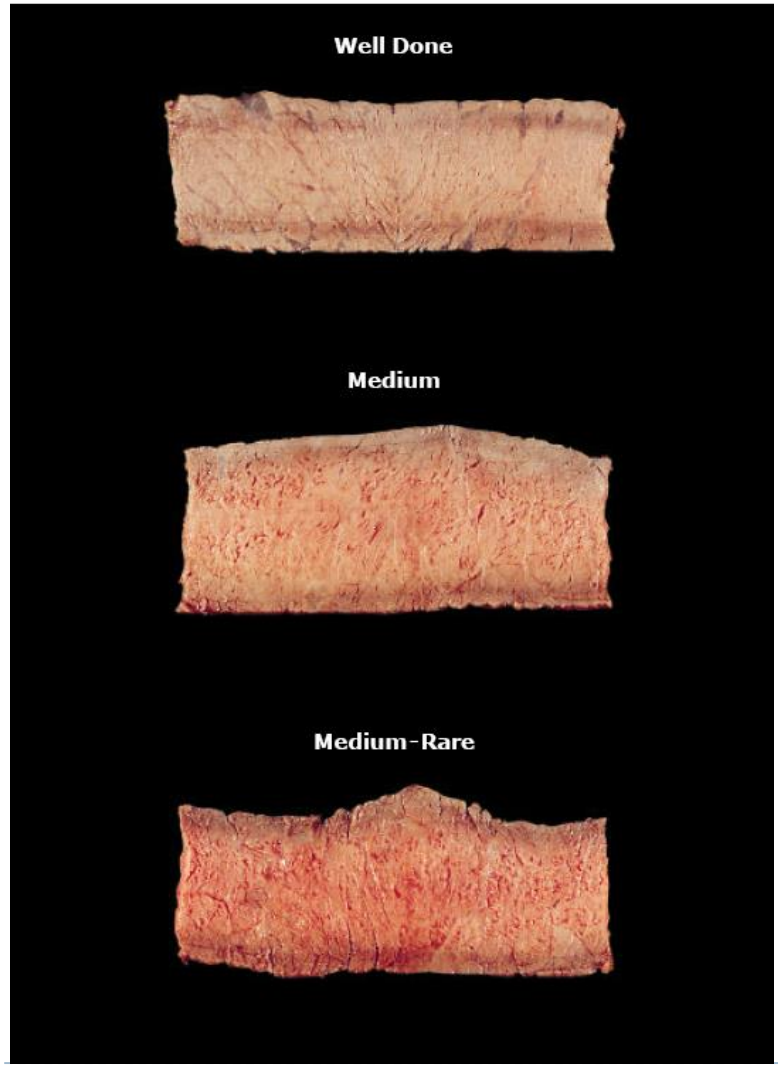
When Is It Done?

- Steaks and Roasts
  - 145˚F (medium rare)
- Ground Beef
  - 160˚F (medium)
- More you cook beef the more moisture you lose



When Is It Done?

- Well Done - 170˚F – no pink at all
- Medium -160˚F- thin pink line in middle
- Medium Rare- 145˚F – dark pink center



Carving Clues

- Use a sharp knife
- Allow roasts and steaks to stand for 15 to 20 minutes
- The more tender the roast, the thicker the slices may be
- Less tender steaks and roasts should be carved thin
- Brisket, Tri-Tip roasts, and flank steaks carve diagonally across the grain

The Beef That We Love Is GOOD For Us Too!

- Naturally-Nutrient Rich -
  10 Essential Nutrients

- A 3-ounce portion of beef is an **excellent** source of protein, phosphorus, selenium, Vitamin B12, and zinc and a **good** source of iron, niacin, riboflavin, vitamin B6, and choline.

- Utilize the more than 29 lean beef cuts

Beef Nutrition

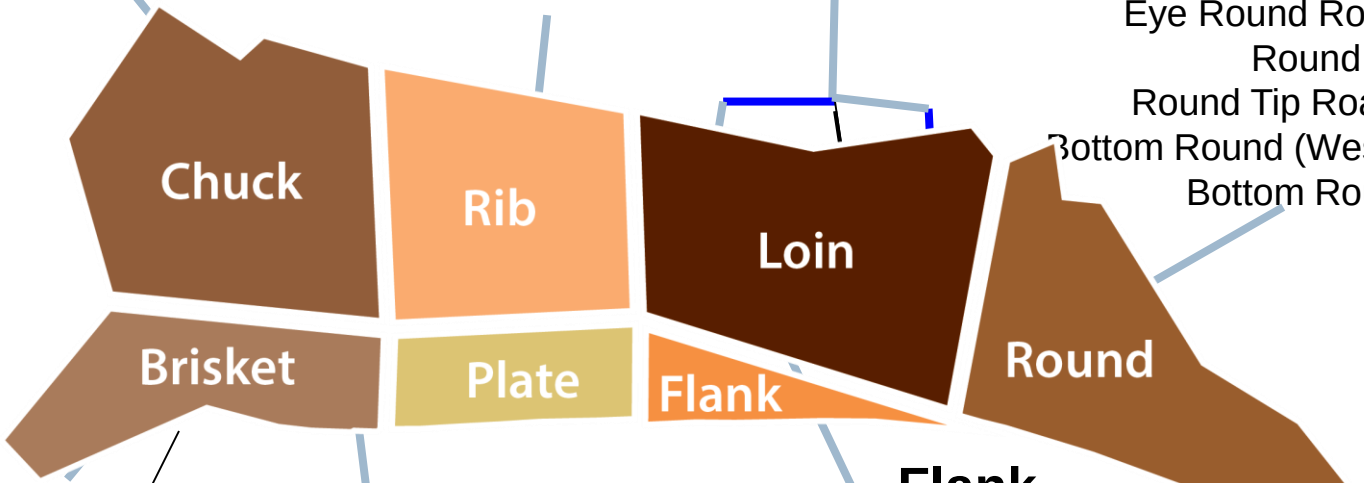
29+ Lean Cuts of Beef

Chuck
Chuck Arm Pot Roast
Shoulder Pot Roast
Shoulder Center Steak
Petite Tender and Medallions

Rib

Loin
Tenderloin Steak & Roast
Top Loin Steak
Top Sirloin Steak
Tri–Tip Steak & Roast
T-Bone Steak
Sirloin Tip Center Roast & Steak

Round
Top Round Steak & Roast
Eye Round Roast and Steak
Round Steak
Round Tip Roast and Steak
Bottom Round (Western Griller) Steak
Bottom Round Roast



Shank
Skirt Steak

Brisket
Brisket, Flat Half

Flank
Flank Steak

Other
93% Lean
Ground Beef

BEEF'S BIG 10

Do more than just get through the day – be your best every day. **Here's how beef's essential nutrients can help.**

VITAMINS B_6 and B_{12} help maintain brain function.

B-vitamins in beef help give you the **energy** to tackle busy days.

IRON helps your body use oxygen.

ZINC helps maintain a healthy immune system.

CHOLINE supports nervous system development.

PHOSPHORUS helps build bones and teeth.

All lean beef cuts have less than 10 grams of total fat, 4.5 grams or less of saturated fat and less than 95 milligrams of cholesterol per 3 ½-oz. cooked serving. **Surprise! Some cuts of beef are as lean as a 3-oz. skinless chicken thigh.**

PROTEIN helps preserve and build muscle.

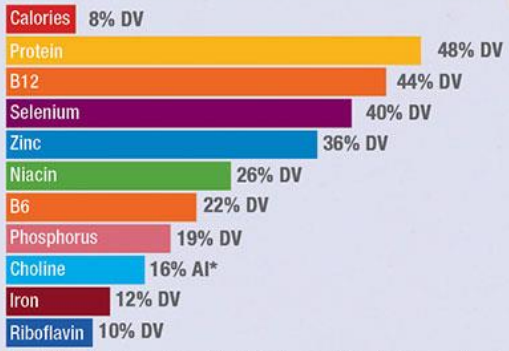
NIACIN supports energy production and metabolism.

SELENIUM helps protect cells from damage.

RIBOFLAVIN helps convert food into fuel.

BEEF GIVES YOUR BODY MORE

of the nutrients you need. A 3-oz. serving of lean beef provides the following nutrients in about 150 calories:



The "daily value" percentage (aka DV) helps you determine how much of a particular nutrient a food contributes to average daily needs. Each nutrient is based on 100% of the daily requirements for that nutrient (for a 2,000 calorie diet).

*(*AI stands for Adequate Intake. The highest AI for Choline is 550mg.)*

DID YOU KNOW?

- Don't be left unsatisfied. A 3-oz serving of lean beef provides 25 g (about half) of the Daily Value for protein, which is one of the most satisfying nutrients.
- Get your workout in! Exercise is more effective when paired with a higher-protein diet.
- Interested in heart health? Research shows that including lean beef, even daily as part of a heart-healthy diet and lifestyle, improved cholesterol levels.

BEEF

Funded by the Beef Checkoff.

For recipes and more visit
BeefItsWhatsForDinner.com

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Roussell MA, Hill AM, Gaugler TL, West SG, Vanden Heuvel JP, Alaupovic P, Gillies PJ, and Kris-Etherton PM. Beef in an Optimal Lean Diet study: Effects on lipids, lipoproteins, and apolipoproteins. Am J Clin Nutr 2012;95:9-16.

For more information go to:

BeefItsWhatsForDinner.com