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 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

<table>
<thead>
<tr>
<th>Type of Beef</th>
<th>Refrigerator (35-40°F)</th>
<th>Freezer (0°F or colder)</th>
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<tbody>
<tr>
<td>Fresh</td>
<td>Steaks, Roasts, Pot Roasts</td>
<td>3 to 4 days</td>
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<tr>
<td></td>
<td>Beef for Stew, Stir-fry, &amp; kabobs</td>
<td>2 to 3 days</td>
</tr>
<tr>
<td>Ground Beef</td>
<td>1 to 2 days</td>
<td>3 to 4 months</td>
</tr>
<tr>
<td>Left-over (cooked)</td>
<td>All</td>
<td>3 to 4 days</td>
</tr>
</tbody>
</table>
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

**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

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

**Rib**

**Flank**
- Flank Steak

**Brisquet**
- Brisket, Flat Half

**Shank**
- Skirt 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 B6 and B12 help maintain brain function.

ZINC helps maintain a healthy immune system.

CHOLINE supports nervous system development.

PROTEIN helps preserve and build muscle.

SELENIUM helps protect cells from damage.

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:

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>Calories</th>
<th>8% DV</th>
<th>48% DV</th>
<th>44% DV</th>
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<tbody>
<tr>
<td>Protein</td>
<td>8% DV</td>
<td>48% DV</td>
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<tr>
<td>B12</td>
<td>8% DV</td>
<td>48% DV</td>
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<tr>
<td>Selenium</td>
<td>8% DV</td>
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<tr>
<td>Zinc</td>
<td>8% DV</td>
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<tr>
<td>Niacin</td>
<td>8% DV</td>
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<tr>
<td>B6</td>
<td>8% DV</td>
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<td>Phosphorus</td>
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<td>Choline</td>
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<tr>
<td>Iron</td>
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<tr>
<td>Riboflavin</td>
<td>8% DV</td>
<td>48% DV</td>
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The “daily value” percentage (also 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).

DID YOU KNOW?

• Don’t be left unsatisfied. A 3-oz serving of lean beef provides 25 g of 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.

Thank you for shopping the Beef Checkoff.

For recipes and more visit BeefitsWhatsForDinner.com


For more information go to: BeefItsWhatsForDinner.com