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Nutrition

Nutrition Overview

About 50 different nutrients are essential to health, and no single food or food group contains all of these nutrients. Combining a balanced and varied diet with daily physical activity is the best way to maintain a healthy lifestyle. Yet, many Americans do not consume the recommended daily servings from the five nutrient-bearing food groups, falling particularly short in the categories of fruits and dairy. Although on average Americans consume just slightly less than the minimum number of recommended servings from the meat group, many sub-populations, including women and children, fall far short. Failing to eat the minimum recommended number of servings from each food group can place consumers at risk for nutritional inadequacies.

The *2005 Dietary Guidelines for Americans* and *MyPyramid* encourage people to “go lean with protein” and “get more nutrition from their calories.” Today’s naturally nutrient-rich lean beef easily fits within this guidance.

As an excellent or good source of 9 essential nutrients, beef improves the nutrient density and quality of the diet. Research has shown that people who eat more beef consume more nutrients than low- or non-beef eaters. Those who eat 3.6 ounces of beef a day are more likely to meet 100 percent of the daily value for protein, iron, zinc, and B vitamins than those who eat less.

One three-ounce serving of beef is an excellent source of five essential nutrients (protein, zinc, vitamin B₁₂, selenium and phosphorus) and a good source of four essential nutrients (niacin, vitamin B₆, iron, riboflavin). Recent research demonstrates that the key nutrients in beef may play a positive role in some of today’s major health concerns, including obesity/overweight, heart health, bone health and brain function.

“Go lean with protein!”

and

“Get more nutrition from your calories”

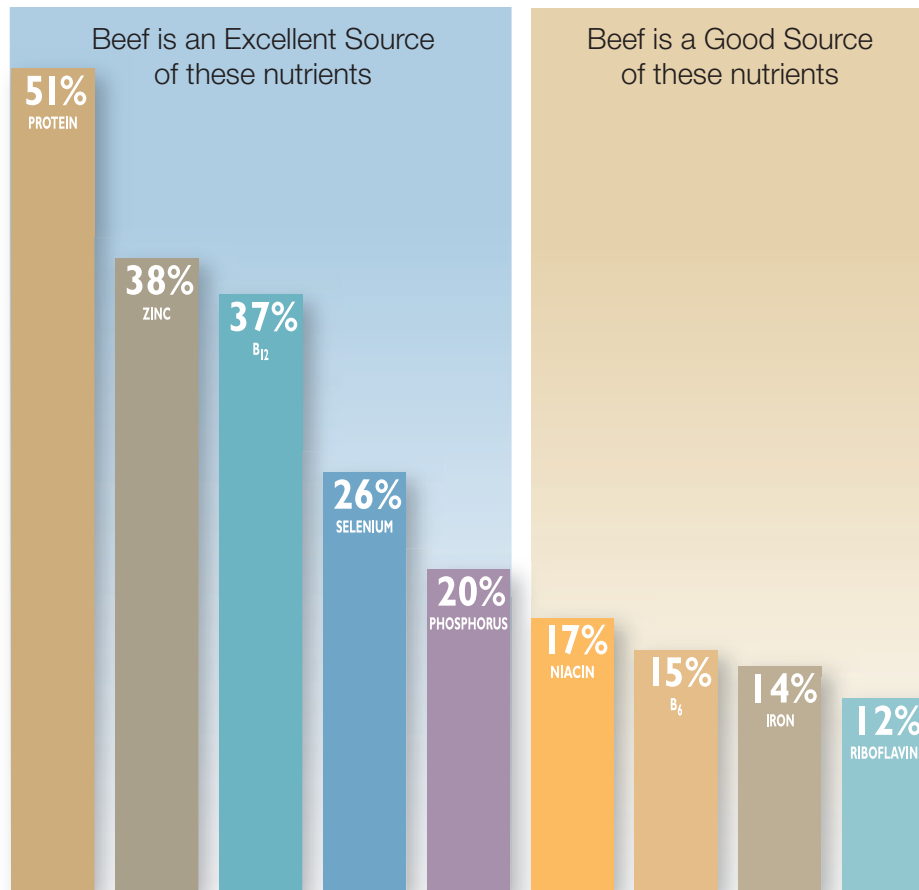
Naturally nutrient-rich lean beef easily fits within this guidance.



SOURCE: USDA, Center for Nutrition Policy and Promotion

Choose Your Calories by the Company They Keep

A 3-ounce serving of lean beef (179 calories) contributes less than 10 percent of calories to a 2,000-calorie diet, yet it supplies more than 10 percent of the Daily Value for:



U.S. Department of Agriculture, Agricultural Research Service, 2005.
 USDA Nutrient Database for Standard Reference, Release 18.
 Nutrient Data Laboratory homepage www.nal.usda.gov/fnic/foodcomp

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Beef is an excellent source of:

Protein
Zinc
Vitamin B₁₂
Selenium
Phosphorus

and a good source of:

Niacin
Vitamin B₆
Iron
Riboflavin

Zinc

Zinc plays a critical role in growth and development, maintenance of the body's immune system and resistance to infection, wound healing, taste acuity and appetite control. It's essential for reproductive health in both men and women. Beef is the number-one food source of zinc in the American diet. A 3-ounce serving of beef provides 38% of the zinc most people need in a day. In addition to containing a high level of absorbable zinc, meat also increases the absorption of zinc from other foods that are eaten at the same meal.

Iron

Iron is an essential nutrient that transports oxygen to body tissues. It's important for cognitive development, intellectual performance, a healthy pregnancy, immune defense and work performance. Beef is the number-three food source of iron in the American diet, following iron-enriched breads and cereals. The type of iron found in meat (heme) is two to three times better absorbed than non-heme iron found in plant foods and, when consumed at the same meal, meat has been shown to increase the absorption of plant iron two- to four-fold – an effect known as “the meat factor.” Pairing beef with other iron-rich foods is a great way to create a healthy menu option – think sirloin spinach salad.

Protein

Protein is the building block for all body tissues including muscles, organs and bones. It's essential to metabolism regulation and can be used as a source of energy. In addition, protein can provide protection from disease by enhancing the body's immune response. Beef is the number-one food source of protein in the American diet, and is considered a complete protein because it contains all nine of the essential amino acids needed by the human body. MyPyramid recommends 5-1/2 ounces per day from the Meat & Beans Group, based on a 2,000-calorie diet. One 3-ounce serving of beef provides 51% of the protein recommended daily.

B-Vitamins

B-vitamins help the body use energy and regulate many of the chemical reactions necessary to promote growth and maintain health. The body needs B-vitamins to “unleash” the energy in food. The family of B-vitamins includes thiamin, riboflavin, niacin, vitamin B₆, folate, vitamin B₁₂, pantothenic acid, and biotin. In the American diet, beef is the number-one food source of vitamin B₁₂, the number-three food source of vitamin B₆ and niacin, and the number-four food source of riboflavin. Calorie-for-calorie, beef is one of the best sources of these essential B-vitamins.

Selenium

Selenium, a well-known antioxidant, may reduce the risk of certain types of cancer and heart disease, as well as enhance the body's ability to fight infections. Beef is the number-two source of selenium in the American diet.

Phosphorus

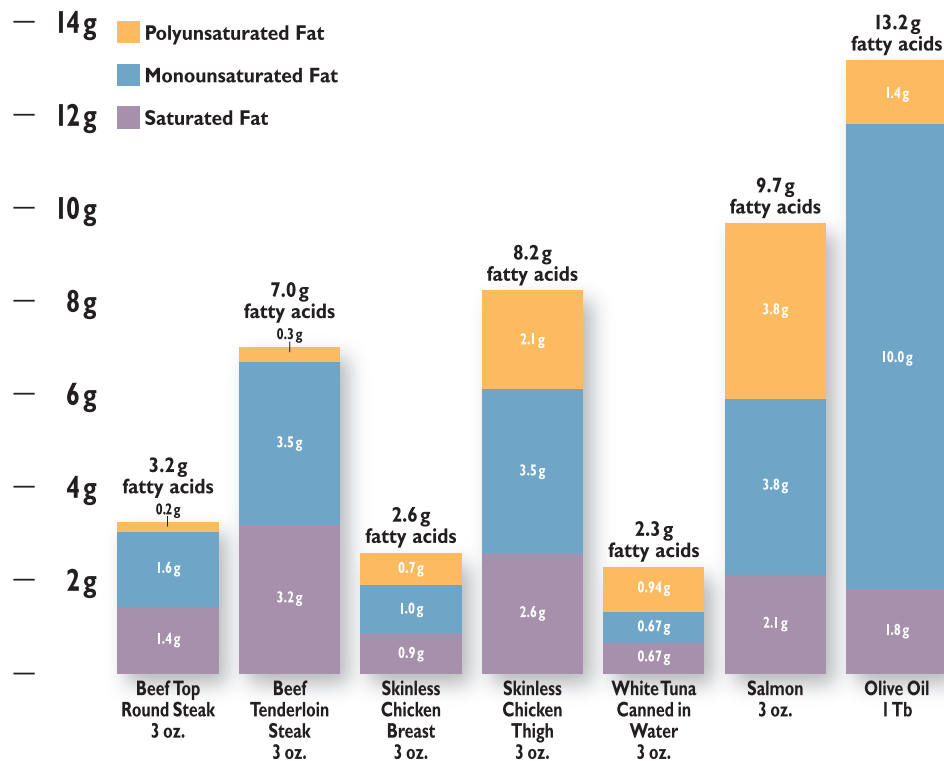
Important in the formation of bones and teeth, phosphorous also plays an important role in the body's utilization of carbohydrates and fats, as well as the synthesis of protein for growth, and the maintenance and repair of cells and tissues. Beef is the number-three source of phosphorus in the American diet.

Good Fat vs. Bad Fat

Many people may not realize that half of the fatty acids in beef are monounsaturated, the same heart-healthy kind of fat found in olive oil. Most experts believe monounsaturated fats can lower blood cholesterol and reduce the risk of heart disease. A 3-ounce serving of cooked beef typically contains more monounsaturated fatty acids than saturated fatty acids. About one-third of the saturated fat in beef is stearic acid, which has been shown to have a neutral effect on blood cholesterol levels in humans. The remaining saturated fat that can potentially raise blood cholesterol levels is comparable in lean beef, fish and chicken.

Fatty Acid Comparisons of Beef, Chicken, Fish and Olive Oil

A common misperception is that the majority of fatty acids* in beef are saturated. In fact, half of the fatty acids in beef are monounsaturated, the same type found in olive oil.



*Total fatty acids include saturated fat, monounsaturated fat and polyunsaturated fat. Total fatty acids do not equal the total fat value because the fat value may include some non-fatty acid material, such as glycerol, phospholipids and sterols.

Source: US Department of Agriculture, Agricultural Research Service, 2005. USDA Nutrient Database for Standard Reference, Release 18. Nutrient Data Laboratory homepage www.nal.usda.gov/fnic/foodcomp.

Fat & Cholesterol: The Whole Story

Fat is an essential nutrient. It enables the absorption of fat-soluble vitamins and the formation of hormones, and it can be used as an energy source. The key, of course, is to consume it in moderation. Beef can be a part of a diet moderate in fat – and a part of your healthful menu options, especially when you serve leaner cuts. Half of fatty acids in beef are monosaturated, the same type of fatty acids found in olive oil and championed for their heart-healthy properties. In addition, approximately 1/3 of the saturated fat in beef is stearic acid. Studies have shown that stearic acid does not raise blood cholesterol levels as other fatty acids do.

Lean beef fits easily into low fat diets designed to decrease blood cholesterol levels. Research shows that Americans can eat six ounces of lean red meat five or more days a week as part of a cholesterol-lowering diet. In fact, lean beef is just as effective as skinless chicken in lowering blood cholesterol levels.

Lean Beef

There are now 29 ways to love lean beef. Twenty-nine cuts of beef meet government guidelines for lean with less than 10 grams of total fat, 4.5 grams or less of saturated fat, and less than 95 milligrams of cholesterol per 3-ounce serving. All 29 lean cuts of beef have less than 175 calories per 3-ounce serving and, on average, only one more gram of saturated fat than a skinless chicken breast, per 3-ounce serving. Sixty-five percent of all muscle cuts sold at retail and 15 of the top 20 most popular whole muscle cuts meet government guidelines for lean.

Calorie-for-calorie, beef is one of nature's best-tasting multivitamins. A 3-ounce serving of lean beef contributes less than 10 percent of calories to a 2,000-calorie diet, yet it supplies more than 10 percent of the Daily Value for nine essential nutrients.

A 3-ounce serving of lean beef is an **excellent** source of:

- Protein (51% of the DV)
- Zinc (38% of the DV)
- Vitamin B₁₂ (37% of the DV)
- Selenium (26% of the DV)
- Phosphorus (20% of the DV)

A 3-ounce serving of lean beef is a **good** source of:

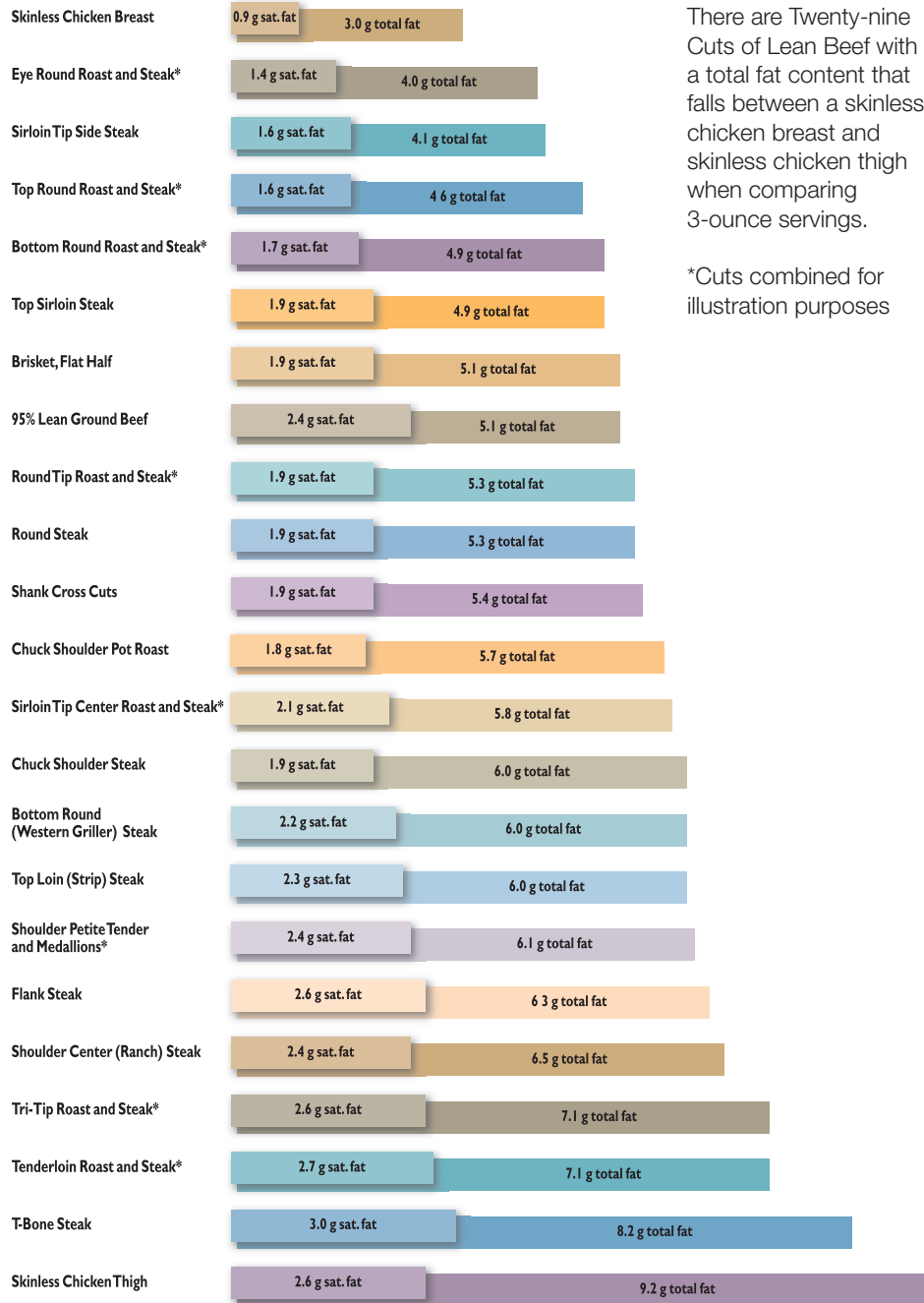
- Niacin (17% of the DV)
- Vitamin B₆ (15% of the DV)
- Iron (14% of the DV)
- Riboflavin (12% of the DV)

Lean beef is a nutrient powerhouse compared to the same size (3-ounce) serving of a skinless, boneless chicken breast – lean beef has 8 times more vitamin B₁₂, 6 times more zinc and 3 times more iron (and lots more flavor!). In addition, lean beef is an excellent or good source of nine essential nutrients, while a skinless chicken breast only provides five nutrients.

*29 cuts of
beef meet
government
guidelines
for lean.*

Lean beef is a nutrient powerhouse

Twenty-nine Ways to Love Lean Beef



There are Twenty-nine Cuts of Lean Beef with a total fat content that falls between a skinless chicken breast and skinless chicken thigh when comparing 3-ounce servings.

*Cuts combined for illustration purposes

Lean: less than 10g of total fat, 4.5g or less of saturated fat, and less than 95mg of cholesterol per serving and per 100 grams. Source: US Department of Agriculture, Agricultural Research Service, 2005. USDA Nutrient Database for Standard Reference, Release 18. Based on cooked servings, visible fat trimmed.

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Lean Beef Foodservice Cuts

Today's beef is leaner than ever. This chart, based on USDA information, offers calories, cholesterol and fat comparisons of the leanest beef foodservice cuts. Nutrition data for one-ounce portions of cooked, trimmed beef is listed below. To calculate the nutrient content of a serving, multiply the figures listed below by the number of cooked ounces in a serving. To calculate a cooked weight, multiply the raw weight of the serving by .75 (75%).

According to the USDA, one 5-to-7 or two 2-to-3-ounce cooked, trimmed servings of lean meat or other protein sources are recommended daily. To help visualize serving size, bear in mind that a 3-ounce cooked, trimmed portion of beef is about the size of a deck of cards. After cooking, 4 ounces of boneless raw beef will weigh about 3 ounces.

LEANEST BEEF FOODSERVICE CUTS	CALORIES	CHOL (mg)	TOTAL FAT (g)	SAT (g)	MONO (g)	POLY (g)
BEEF EYE OF ROUND STEAK & ROAST <i>ROASTED</i>	48	18	1.34	0.46	0.56	0.05
BEEF TOP (INSIDE) ROUND STEAK & ROAST <i>BROILED</i>	52	20	1.55	0.53	0.65	0.06
BEEF LOIN, TOP SIRLOIN BUTT STEAK & ROAST <i>BROILED</i>	52	16	1.64	0.63	0.65	0.06
BEEF BRISKET, FLAT CUT <i>BRAISED</i>	56	16	1.70	0.63	0.72	0.06
BEEF ROUND, KNUCKLE (TIP) STEAK & ROAST <i>ROASTED</i>	51	22	1.78	0.62	0.75	0.08
BEEF ROUND RUMP (STEAMSHIP, BARON OF BEEF) <i>ROASTED</i>	51	22	1.78	0.62	0.75	0.08
BEEF SHOULDER, ARM STEAK (RANCH STEAK) <i>ROASTED</i>	49	19	1.80	0.58	0.93	0.08
BEEF CHUCK, SHOULDER (CLOD), ARM ROAST <i>BRAISED</i>	49	20	1.91	0.61	0.93	0.08
BEEF ROUND, OUTSIDE ROUND (FLAT) <i>ROASTED</i>	52	22	2.01	0.72	0.90	0.09
BEEF STRIP LOIN STEAK <i>BROILED</i>	54	19	2.01	0.77	0.80	0.07
BEEF CHUCK, SHOULDER TENDER (PETITE TENDER) <i>GRILLED</i>	50	22	2.04	0.80	0.83	0.12
BEEF FLANK STEAK <i>BROILED</i>	53	14	2.10	0.87	0.83	0.08
BEEF LOIN, BOTTOM SIRLOIN BUTT, TRI-TIP STEAK & ROAST <i>ROASTED</i>	53	20	2.36	0.86	1.19	0.08
BEEF LOIN, TENDERLOIN STEAK & ROAST <i>BROILED</i>	57	22	2.38	0.91	0.95	0.09
BEEF LOIN, T-BONE STEAK <i>BROILED</i>	57	16	2.72	0.99	1.29	0.09

SOURCE: U.S. Department of Agriculture, Agricultural Research Service, 2005. USDA Nutrient Database for Standard Reference, Release 18.