



# BEEF NUTRIENTS THAT WORK AS HARD AS YOU DO

*Beef contains a power pack of nutrients including zinc, iron, protein and B-vitamins — nutrients that work as hard as you do every day!*

*Eating right plays an integral role in keeping you healthy and active. And when it comes to nutrition, some foods have just a little more to offer.*

## Beef — A Nutrient Power Pack

**ZINC** may be a nutrient you consider only when you're catching a cold, or your immune system needs a boost, but did you know that zinc is essential for physical and mental development, wound healing and appetite control? Beef is the number one food source of zinc in the American diet. **A 3-ounce serving of beef provides 39% of the zinc most people need in a day!** In addition to containing a high level of absorbable zinc, beef also increases the absorption of zinc from other foods when eaten at the same meal.

**IRON** is a mineral that plays a vital role in many biological functions. It helps carry oxygen to body cells and tissues, assists in making new red blood cells, aids in brain development and supports the immune system — all to keep you healthy. Research has shown even mild, short-term iron deficiency can impair your ability to function at peak productivity. And yet, iron deficiency is the most common nutritional deficiency in the United States.<sup>2</sup>

Beef is the number three food source of iron in the American diet following iron-enriched breads and cereals. However, the iron in red meat is more completely absorbed by the body than the iron found in bread, cereal and other plant products. Two factors can increase the absorption of iron from plant foods — meat and vitamin C. **Meat consumption during a meal has been shown to increase the absorption of plant iron two- to four-fold.** This enhancing effect is known as the "meat factor." Eat a variety of foods and pair iron-enhancing foods with iron-rich foods to increase iron absorption. Try sirloin strips with a spinach salad for a delicious high-iron meal.

**PROTEIN** plays many roles that help keep you energized and support your body functions.

- Proteins are part of all your body's tissues, including muscles, organs and bones.
- Proteins make up the hormones and enzymes that regulate body processes.
- Proteins work with the immune system to protect you from disease.
- Coupled with moderate exercise, protein helps improve body composition during weight loss. A recent study shows a significant greater fat loss and maintenance of lean muscle mass for subjects on a diet rich in high-quality protein.<sup>3</sup>

You need to eat enough protein daily to support growth and maintenance of tissues, and to replace proteins that are broken down by the body.

All foods contain some protein, but the amount and quality of the protein vary greatly. Meat, fish, poultry, eggs, soy and dairy products are considered high-protein foods. Vegetables and grains also contain protein, but in lesser amounts.



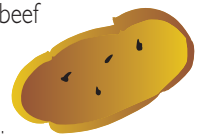
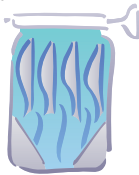
An easy way to make sure you get the protein you need each day is to follow the government's dietary guidance as illustrated by *MyPyramid*. The foods highest in protein are represented by the purple band (meat and beans group) and the blue band (milk group). The pyramid recommends 3 cups per day from the milk group, and 5-7 ounces per day from the meat and beans group. **One 3-ounce serving of beef provides 50% of the protein recommended daily!** All this high quality protein comes in the same delicious package with zinc, iron and B-vitamins! That's a great fuel to help power you through the day.

**B-VITAMINS** work to promote growth and maintain health. You need essential B-vitamins to "unleash" the energy in food. Calorie for calorie beef is one of the best sources of many essential B-vitamins. A balanced diet that includes beef can help give you the energy you need to tackle your busy days.

**FAT** is an essential nutrient. It provides for the absorption of fat-soluble vitamins and the formation of hormones, and it can be used as an energy source. But remember, don't overdo it. To choose a diet moderate in fat, select lean cuts of meat, skinless poultry and lowfat dairy products. Balance lowfat and high fat options over time.

Half of the fatty acids in beef are monounsaturated, the same type of fatty acids found in olive oil and championed for their heart-healthy properties. In addition, approximately one-third of the saturated fat in beef is stearic acid. Studies have shown that stearic acid does not raise blood cholesterol levels like other saturated fatty acids do.<sup>4</sup>

Lean beef fits easily into lowfat meal plans 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. Further, both red and white meat produce the same favorable changes in blood cholesterol levels. In other words, **lean beef is just as effective as skinless chicken when it comes to lowering blood cholesterol levels.**<sup>5</sup>

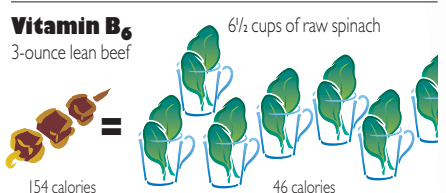
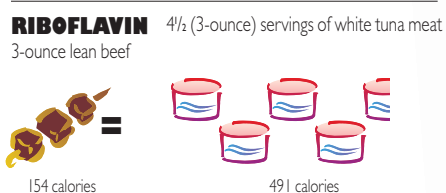
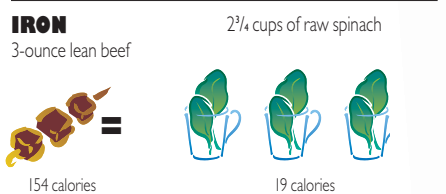


## 29 cuts of lean beef—\*

- Eye Round Roast and Steak
- Sirloin Tip Side Steak
- Top Round Roast and Steak
- Bottom Round Roast and Steak
- Top Sirloin Steak
- Brisket, Flat Half
- 95% Lean Ground Beef
- Round Tip Roast and Steak
- Round Steak
- Shank Cross Cuts
- Chuck Shoulder Pot Roast
- Sirloin Tip Center Roast and Steak
- Chuck Shoulder Steak
- Bottom Round (Western Griller) Steak
- Top Loin (Strip) Steak
- Shoulder Petite Tender and Medallions
- Flank Steak
- Shoulder Center (Ranch) Steak
- Tri-Tip Roast and Steak
- Tenderloin Roast and Steak
- T-Bone Steak

\*Classified as lean according to USDA labeling guidelines

### Beef Competitive Advantage<sup>1</sup>



### Beef — Nutrients to Fuel Active Bodies

**Physical activity also contributes to a healthy lifestyle.** You do not need to spend hours in the gym to reap the benefits of exercise; simply aim for thirty to sixty minutes of activity each day. Small changes in your daily routine can help you get there. Yard work, housekeeping, playing with the kids — anything that gets you moving counts! Beef, as part of a balanced diet, can help give you the energy you need to meet your activity goals. **Zinc** is involved in energy metabolism during exercise and plays a role in muscle recovery. **Iron** helps deliver oxygen to muscles and is required for energy metabolism. **Protein** is essential to repair body tissue and, along with zinc, aids in muscle recovery after exercise. Beef is full of the vitamins, minerals and protein you need to live a dynamic, healthy life.

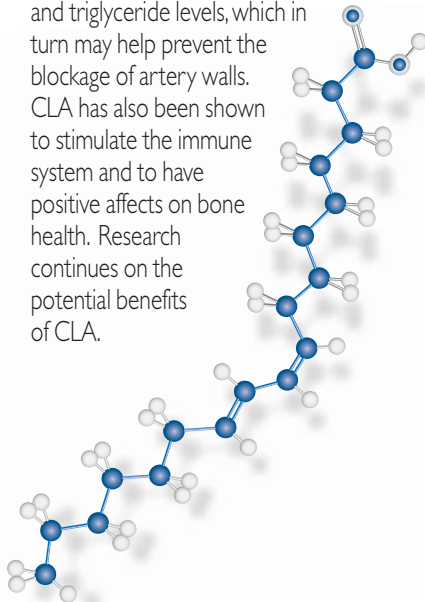
# BEEF

## NUTRIENTS THAT WORK AS HARD AS YOU DO

### Beef — An Extra Nutrient Boost

Now you know about beef as a good source of “traditional nutrients.” But beef has more benefits than that! Scientists are just learning about other nutrients in beef that can give you the extra boost you need.

**Conjugated Linoleic Acid**, or CLA, is a fatty acid found naturally in beef and dairy products. Research indicates CLA may play a role in cancer prevention by inhibiting tumor growth and development, and can affect body composition by decreasing body fat and increasing lean muscle mass. CLA may help normalize blood glucose levels and prevent diabetes. It may contribute to heart health by helping lower serum cholesterol and triglyceride levels, which in turn may help prevent the blockage of artery walls. CLA has also been shown to stimulate the immune system and to have positive affects on bone health. Research continues on the potential benefits of CLA.



**Selenium** is a trace mineral occurring naturally in many food sources. Seafood and other meats tend to contain more selenium than plant foods. Selenium is an antioxidant that works with vitamin E to help prevent damage to your body's cells. Recent studies have found adequate intake of selenium may reduce the risk of heart disease and certain types of cancers. Beef is an excellent source of this nutrient.

**A 3-ounce serving of beef provides 31% of the selenium you need daily.<sup>1</sup>**

**Choline**, an essential nutrient for humans, plays a vital role in cognition and long- and short-term memory functions. Does that mean what you eat can help make you smarter? The answer is “yes.” Along with its many other nutrients, beef contains a significant amount of choline.



### Mojo Beef Kabobs

Total preparation and cooking time: 40 minutes

- 1 pound boneless beef top sirloin steak, cut 1 inch thick
- 1 teaspoon coarse grind black pepper
- 1 large lime, cut into 8 wedges
- 1 small red onion, cut into 8 thin wedges
- 1 container grape or cherry tomatoes (about 10 ounces)

#### Mojo Sauce:

- 1/4 cup fresh orange juice
- 1/4 cup fresh lime juice
- 3 tablespoons finely chopped fresh oregano
- 3 tablespoons olive oil
- 2 tablespoons finely chopped fresh parsley
- 1 teaspoon ground cumin
- 1 teaspoon minced garlic
- 3/4 teaspoon salt

1. Whisk Mojo Sauce ingredients in small bowl. Set aside.
2. Cut beef steak into 1-1/4 inch pieces; season with pepper.
3. Alternately thread beef with lime and onion wedges evenly onto four 12-inch metal skewers. Thread tomatoes evenly onto four 12-inch metal skewers.
4. Place kabobs on grid over medium, ash-covered coals. Grill tomato kabobs, uncovered, about 2 to 4 minutes or until slightly softened, turning occasionally. Grill beef kabobs, uncovered, about 8 to 10 minutes for medium rare to medium doneness, turning occasionally.
5. Serve kabobs drizzled with sauce.

Makes 4 servings.

**Nutrition information per serving:**  
**285 calories; 15 g fat (3 g saturated fat; 10 g monounsaturated fat); 50 mg cholesterol; 500 mg sodium; 10 g carbohydrate; 1.8 g fiber; 27 g protein; 8.2 mg niacin; 0.6 mg vitamin B<sub>6</sub>; 1.4 mcg vitamin B<sub>12</sub>; 2.6 mg iron; 31.9 mcg selenium; 5.1 mg zinc.**

**This recipe is an excellent source of protein, niacin, vitamin B<sub>6</sub>, vitamin B<sub>12</sub>, selenium and zinc, and a good source of iron.**

**Recipe from *The Healthy Beef Cookbook* published by John Wiley & Sons, Inc.**

**For more delicious beef recipes or to order *The Healthy Beef Cookbook*, go to [www.BeefitsWhatsForDinner.com](http://www.BeefitsWhatsForDinner.com)**

#### Sources:

1. U.S. Department of Agriculture, Agricultural Research Service. 2006. USDA Nutrient Database for Standard Reference, Release 19. Nutrient Database Laboratory Home Page, [www.nal.usda.gov/fnic/foodcomp](http://www.nal.usda.gov/fnic/foodcomp). Daily Values based on 2000 calorie diet.
2. U.S. Department of Health and Human Services. Centers for Disease Control. Recommendations to prevent and control iron deficiency in the United States. 47: No. RR-3, April 3, 1998.
3. Layman D et al. Dietary protein and exercise have additive effects on body composition during weight loss in adult women. *J of Nutr.* 2005. 135:1903-1910.
4. Pearson, T.A. guest scientific editor. Stearic acid; a unique saturated fatty acid. *Suppl. To Am. J. Clin. Nutr.* 60:983s-1072s; 1994.
5. Davidson, M.H.; Hunninghake, D.; Maki, K.C.; Kwiterovitch, P.O.; Kafonek, S. Comparison of the effects of lean red meat vs. lean white meat on serum lipid levels among free-living persons with hypercholesterolemia. *Arch Intern. Med.* 159:1331-1338, 1999.

## BEEF — A NUTRIENT BUNDLE IN EVERY BITE

Brought to you by



The Beef Checkoff through the National Cattlemen's Beef Association