Power Up for the Good Life with Lean Beef

The foods you choose, combined with physical activity, can help you live vibrantly. The key to staying active and energetic is taking good care of yourself. Recent research suggests consuming high-quality protein, such as lean beef, plays an important role in muscle maintenance, weight management and chronic disease prevention. That's great news if you're looking for ways to fuel your life as you engage in everything the good life has to offer.

Follow the Food Guide

The United States Department of Agriculture's (USDA) *MyPyramid* emphasizes the basics: within calorie needs, keep good nutrition simple by enjoying foods from each food group that are rich in essential nutrients first. There are five food groups for a reason — each brings different essential nutrients that are vital to good health. Choosing wisely within and among *all* food groups is necessary to staying healthy at any age.

MyPyramid.gov
STEPS TO A HEALTHIER YOU

Include Protein in the Anti-Aging Diet

Research suggests that high-quality protein found in foods from the meat and dairy groups, such as lean beef, eggs, fish, lowfat and fat free milk, yogurt and cheese, could be a dietary solution to many age-related health issues. Taking small steps to enhance diet quality, such as adding lean protein to each meal, over time can lead to better overall health. What's more, nutrient-rich foods that contain lean protein pack more nutrients per bite, in fewer calories — so they're easier on the waistline than empty-calorie foods.

Fight Sarcopenia

Sarcopenia is an age-related condition that causes loss of muscle mass and strength as you get older, making it difficult to perform daily tasks. Sarcopenia leads to a decline in lean body mass and occurs as early as age 40 and can result in the loss of as much as a third of muscle mass over time. Sarcopenia can also lead to lower lean body mass and lower bone density. The risk of sarcopenia increases with age. In fact, it's a condition that affects up to half of those in their 80's. By reducing sarcopenia prevalence by 10 percent, $1.1 billion in healthcare costs would be saved each year.[1] While approximately 9.1 million Americans suffer from sarcopenia, recent research does suggest that modest changes to the diet can combat, and in some cases reverse, this debilitating condition.

It's a fact:
10 to 30 percent of 60 year olds, and 20 to 50 percent of 80 year olds have sarcopenia

Not unlike nutrition experts recommending more calcium to prevent osteoporosis as we age, research has also found that eating enough protein-rich foods is essential to help protect lean body mass and prevent sarcopenia. As with our bones, it's important for people to build muscle at an early age, and consuming protein-rich meals is one way to boost the muscle-building process. Building up muscle now means a lower risk of falls and fractures in the future. That means you can live a more independent life longer. Lean body mass not only increases your metabolism, helping manage weight, but it also helps maintain agility and mobility, so you have the strength for an active lifestyle and can enjoy your favorite activities and exercises.

A 2009 *Current Opinion in Clinical Nutrition and Metabolic Care* article examined dietary protein's role in the prevention of sarcopenia, which found that a very effective and practical way for people to stimulate the process of muscle building is to consume a moderate amount of high-quality protein at each meal. The optimal amount that should be consumed to protect adults from sarcopenic muscle loss is 25 to 30 grams of high-quality protein per meal,[2] which fits well within the current dietary guidelines for protein. Tips, recipes and meal ideas for including tender beef cuts and lean ground beef options in the diet can be found at **BeefItsWhatsforDinner.com**.

[1] Paddon-Jones D, Short K, Campbell W, Volpi E, Wolfe R. Role of dietary protein in the sarcopenia of aging. *American Journal of Clinical Nutrition.* 2008. 87 (suppl): 1562S-6S.

[2] Paddon-Jones D, Rasmussen BB. Dietary protein recommendations and the prevention of sarcopenia. *Current Opinions in Clinical Nutrition & Metabolic Care.* 2009; 12(1):86-90.

Keep Weight In Check

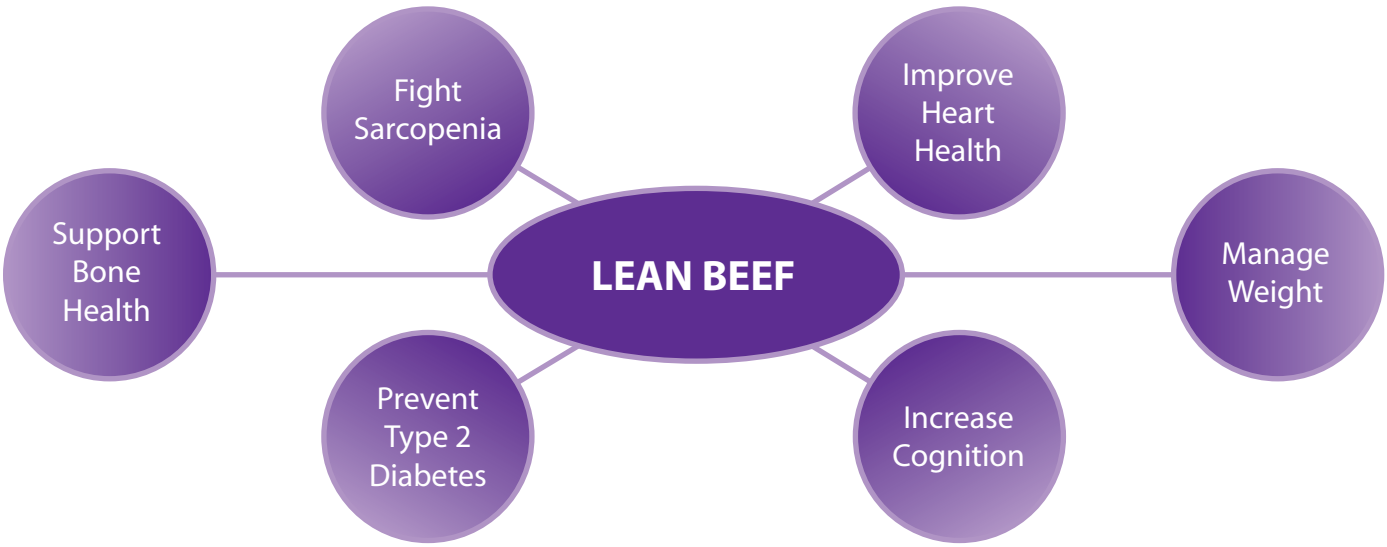
Many adults do not get enough protein in their diet because they are restricting calories in an effort to manage weight. However, eating lean protein is essential for maintaining lean body mass, which helps promote an active or healthy metabolism. Making dietary changes such as adding high-quality protein can ultimately lead to improved weight management.[3] Because protein promotes satiety, eating a protein-rich meal or snack helps you feel full longer, and satisfies cravings faster.[4]

Recent research found that a moderate-carbohydrate, moderate-protein diet helped individuals lose more weight and even reduce their risk factors for metabolic diseases including type 2 diabetes, compared to those who followed a high-carbohydrate, low-protein diet.[5] What's more, research shows exercise is more effective when coupled with a moderately high-protein diet.[6] Keeping weight in check through diet and exercise allows you to live a more vibrant, active life.

Improve Heart Health

Studies also found that individuals who consumed 25-30 percent of their calories from protein had the lowest risk for coronary heart disease and the highest-quality diets.[7] Another study found that individuals who followed a similar diet not only reduced their body fat, but also positively improved good cholesterol and triglycerides, which are heart disease risk factors.[8] You may be surprised at how this type of diet can not only be great tasting but also easy to create. For example, an egg and lowfat cheese omelet, Canadian bacon and whole wheat toast for breakfast, a pulled pork sandwich with cottage cheese and a peach for lunch and at dinner, penne and meatballs with a green salad and fruit cup. Another study also found that people who included 25-30 percent of their calories from protein reduced their risk factors for cardiovascular disease.[9]

Lean Beef Protein Network of Anti-Aging Benefits



[3] Layman DK, Evans EM, Erickson D, Seyler J, Weber J, Bagshaw D, Griel A, Psota T, Kris-Etherton P. A moderate-protein diet produces sustained weight loss and long-term changes in body composition and blood lipids in obese adults. *Journal of Nutrition* 2009; 139:514-521.

[4] Apolzan JW, Carnell NS, Mattes RD, Campbell WW. Inadequate dietary protein increases hunger and desire to eat in younger and older men. *Journal of Nutrition* 2007; 137:1478-82.

[5] Lasker DW, Evans EM, Layman DK. Moderate carbohydrate, moderate protein weight loss diet reduces cardiovascular disease risk compared to high carbohydrate, low protein diet in obese adults: A randomized clinical trial. *Nutrition & Metabolism* 2008; 5:30.

[6] Layman D, Evans E, Baum J, Seyler J, Erickson D, Boleau R. Dietary protein and exercise have additive effects on body composition during weight loss in adult women. *Journal of Nutrition* 2005; 135:1903-1910.

[7] Layman D, Clifton P, Gannon M, Krauss R, Nuttall F. Protein in optimal health: heart disease and type 2 diabetes. *American Journal of Clinical Nutrition* 2008; 87 (suppl): 1571S-5S.

[8] Layman DK, Evans EM, Erickson D, Seyler J, Weber J, Bagshaw D, Griel A, Psota T, Kris-Etherton P. A moderate-protein diet produces sustained weight loss and long-term changes in body composition and blood lipids in obese adults. *Journal of Nutrition* 2009; 139:514-521.

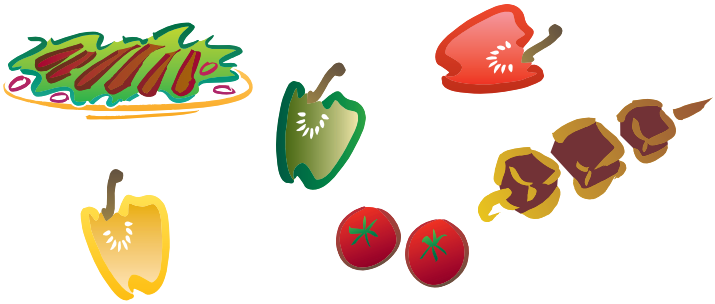
[9] Lasker DW, Evans EM, Layman DK. Moderate carbohydrate, moderate protein weight loss diet reduces cardiovascular disease risk compared to high carbohydrate, low protein diet in obese adults: A randomized clinical trial. *Nutrition & Metabolism* 2008; 5:30.

Experience the Anti-Aging Benefits of Lean Beef

Add Vitamin B to your Anti-Alzheimer's Arsenal — Adults over age 60 with a normal vitamin B_{12} and high folate status appear less likely to experience anemia and cognitive impairment.[10] What's more, research found that people consuming more than 22.4 milligrams of niacin, or vitamin B_3, from food daily were 80 percent less likely to suffer from Alzheimer's disease and age-related cognitive decline than their counterparts.[11] A 3-ounce serving of lean beef provides 2.24 micrograms of vitamin B_{12}, or 37 percent of the Daily Value.

Bone Health/Osteoporosis — Calcium isn't the only nutrient important for bone health. Bones also need enough protein to reach their peak performance. A study confirmed that adults between the ages of 50 and 69 who ate more protein-rich foods, such as beef, had fewer hip fractures resulting from osteoporosis.[12] These findings demonstrate the importance of dietary protein for optimal bone health, which can have a significant impact on overall health and independence.

Prevent Type 2 Diabetes — A research review, "The Underappreciated Role of Muscle in Health and Disease," published in the *American Journal of Clinical Nutrition* indicated that increasing daily high-quality protein intake may optimize muscle strength and metabolism, and ultimately improve overall health. A growing body of evidence suggests muscle metabolism may also play a role in the prevention of many chronic diseases, such as type 2 diabetes.[13]



Lean Beef Delivers High-Quality Protein in Low Caloric Package

Lean beef is an excellent source of high-quality protein. In addition to protein, one 3-ounce serving of lean beef provides an excellent or good source of nine other key nutrients, including zinc, vitamin B_{12}, selenium and phosphorus, niacin, vitamin B_6, iron, riboflavin and choline, in only 180 calories or less. Want even more great news? There are 29 cuts of beef that met 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. Surprisingly half the fatty acids in lean beef are monounsaturated, the same heart-healthy type found in olive oil. Lean beef delivers high-quality protein in a nutrient-rich, low caloric package, and is a delicious addition to any meal.

[10] Morris MS, Jacques PF, Rosenberg IH, Selhub J. Folate and vitamin B_{12} status in relation to anemia, macrocytosis, and cognitive impairment in older Americans in the age of folic acid fortification. *American Journal of Clinical Nutrition* 2007; 85(1):193-200.

[11] Morris MC, Evans DA, Bienias JL, Scherr PA, Tangney CC, Hebert LE, Bennett DA, Wilson RS, Aggarwal N. Dietary niacin and the risk of incident Alzheimer's disease and of cognitive decline. *Journal of Neurology Neurosurgery and Psychiatry* 2004; 75:1093-1099.

[12] Wengreen, Dietary protein intake and risk of osteoporosis hip fracture in elderly residents of Utah. *Journal of Bone and Mineral Research* 2004; 19:537-45.

[13] Wolfe, R. The underappreciated role of muscle in health and disease. *American Journal of Clinical Nutrition* 2006; 84:475-82.

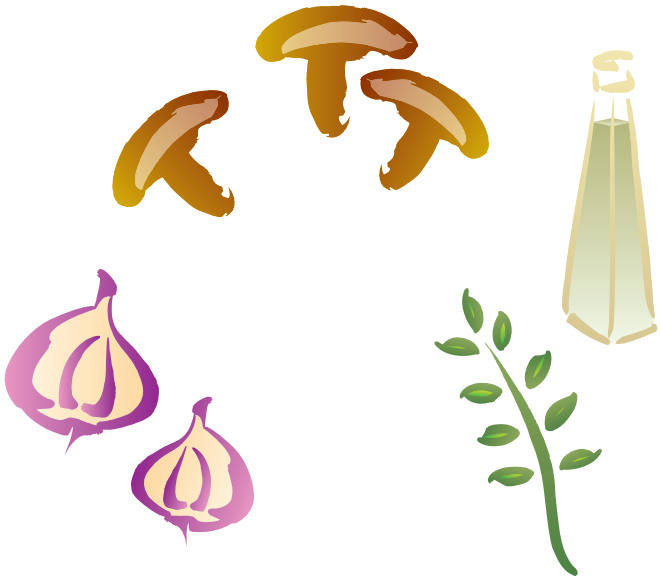
Beef Tenderloin with Savory Saucy Mushrooms and Lentils

Total preparation and cooking time: 45 to 60 minutes

- 4 beef tenderloin steaks, cut 1 inch thick (about 6 ounces each)
- 1/2 cup uncooked lentils
- 1/2 cup water
- 2 cups ready-to-serve beef broth, divided
- 1 teaspoon fresh thyme, chopped or 1/2 teaspoon dried thyme leaves, crushed
- Salt and pepper
- 2 teaspoons olive oil
- 1-1/2 cups assorted mushrooms (shiitake, enoki, straw, cremini, button or chanterelle), whole or cut in half if large
- 1/4 cup minced shallots
- 1 tablespoon cornstarch
- 1 tablespoon Worcestershire sauce

1. Combine lentils, water and 1/2 cup broth in medium saucepan; bring to a boil. Reduce heat to low; cover and simmer 30 to 45 minutes or until lentils are tender but not mushy. Stir in thyme; season with salt and pepper, as desired. Keep warm.
2. Meanwhile heat large nonstick skillet over medium heat until hot. Place steaks in skillet; cook 10 to 13 minutes for medium rare to medium doneness, turning occasionally. Remove to platter; season with salt and pepper, as desired. Keep warm.
3. Heat oil in same skillet over medium heat until hot. Add mushrooms and shallots; cook and stir 3 to 5 minutes or until mushrooms are tender and browned. Add remaining 1-1/2 cups broth to skillet, stirring until browned bits attached to bottom of pan are dissolved; bring to a boil. Combine cornstarch and Worcestershire sauce in small bowl; stir into mushroom mixture. Cook 2 minutes or until sauce thickens, stirring occasionally. Season with salt and pepper, as desired.
4. Divide lentils among 4 serving plates. Top with steaks and mushroom sauce.

Makes 4 servings



Nutrition information per serving: 394 calories; 13 g fat (4 g saturated fat; 6 g monounsaturated fat); 101 mg cholesterol; 567 mg sodium; 21 g carbohydrate; 3.6 g fiber; 46 g protein; 11.6 mg niacin; 0.9 mg vitamin B_6; 2.1 mcg vitamin B_{12}; 5.0 mg iron; 45.6 mcg selenium; 7.1 mg zinc.

This recipe is an excellent source of protein, niacin, vitamin B_6, vitamin B_{12}, iron, selenium and zinc; and a good source of fiber.