According to the 2005 U.S. Dietary Guidelines, several key nutrients are lacking in the diets of Americans, including vitamin A, vitamin E, vitamin C, calcium, magnesium, potassium, and fiber (1). The good news is that a recent study from The Pennsylvania State University shows that eating peanuts or peanut butter daily can help children and adults meet government recommendations for important nutrients. For the study, researchers analyzed data from a United States Department of Agriculture (USDA) national survey of what people are eating. After looking at the diets of more than 15,000 individuals, researchers found that peanut butter and peanut eaters consumed more hard-to-get nutrients compared to those who did not eat peanuts (2).

This study shows that as little as one daily serving of peanuts or peanut butter can help children and adults meet nutrient needs. Peanut butter and peanut eaters had higher intakes of:

- Vitamin A
- Folate
- Magnesium
- Iron
- Vitamin E
- Calcium
- Zinc
- Dietary Fiber
- Mono- and Polyunsaturated Fats

**Did you know?** A PB&J sandwich on whole-wheat bread provides six grams of beneficial dietary fiber.
Study Shows Peanuts May Be Mother Nature’s “Vitamin Pill”

**Vitamin E**

Most Americans are not meeting their daily needs for vitamin E. Vitamin E, which is hard to get from foods, is thought to help prevent heart disease, Alzheimer’s disease, and dementia. One study showed that adults with the highest dietary intake of vitamin E had a 67% decreased risk of developing Alzheimer’s compared to the group with the lowest intake of vitamin E (3). In addition, vitamin E is an anti-oxidant that acts as a free radical and may help boost immune response.

One serving of peanut butter or peanuts contains 21 and 16 percent, respectively, of the Daily Value for vitamin E. The healthy unsaturated fat in peanuts and peanut butter assists in the absorption of fat-soluble vitamin E. Scientists think that vitamin E works in conjunction with other nutrients in foods, which may explain why vitamin E from foods, not mega-doses from supplements, provides the greatest benefits to health (4,5).

**Magnesium**

Intake of magnesium, which may be important in preventing heart disease, was also higher in peanut butter and peanut eaters in the USDA study. This finding is consistent with a study conducted at Purdue University, where researchers studied the effects of peanut consumption on well-known risk factors for cardiovascular disease (6). One of the principle investigators, Dr. Richard Mattes, Department of Foods and Nutrition, Purdue University, says, “We wanted to determine the impact of peanut consumption on total diet quality. We found that including peanuts in the diet significantly increased magnesium, folate, fiber, copper, vitamin E, and arginine consumption, all of which play a role in the prevention of heart disease.”

Nutrition research suggests that adequate magnesium intake also may play a role in preventing type 2 diabetes, which is one of the fastest growing health epidemics in America. Data from the Nurses’ Health Study and Harvard School of Public Health shows that women with a higher intake of magnesium had a reduced risk of developing type 2 diabetes, compared to those women with lower intakes (7). A one-ounce serving of peanuts or a two-tablespoon serving of peanut butter contains 13 and 12 percent, respectively, of the Daily Value for magnesium.

**Fiber**

On average, Americans are currently consuming only about half of the fiber they need each day. The 2005 U.S. Dietary Guidelines recommend getting 14 grams of fiber per 1,000 calories. That’s 28 grams of fiber per day for the 2000-calorie reference diet. Fiber consumption may reduce the risk of cardiovascular disease and diabetes by reducing total and low-density lipoprotein (LDL) cholesterol and improving glycemic control (2).

Fiber is often hard to incorporate into the diets of both children and adults. But in the study, children who ate two or more servings of peanut butter or peanuts per day consumed twice as much fiber compared to children who ate little or none. A one-ounce serving of peanuts or two tablespoons of peanut butter each contain about 2 grams of fiber—that’s as much as a slice of whole-wheat bread.

**Folate**

Folate also contributes to the heart-healthfulness of peanuts and peanut butter. Folate is important in breaking down the amino acid homocysteine, which in high levels can lead to artery damage and higher risk of heart attack (2). Folate is also important for women who are or may become pregnant to prevent neural tube defects in their babies. Per serving, peanuts and peanut butter provide about 10% and 6% of the Daily Value for folate.

**Calcium**

Low-fat or non-fat milk is a natural pair with a peanut butter sandwich. This may explain why peanut eaters in the study had higher intakes of calcium, an important nutrient for both children and adults. Survey data shows that two-thirds of peanut butter sandwiches are eaten with milk.

Zinc

Peanut butter and peanut eaters consumed more zinc, a mineral essential for growth. Zinc also promotes reproduction of cells and the growth and repair of tissues. A two-tablespoon serving of peanut butter or a one-ounce serving of peanuts provides 6% of the Daily Value for zinc.

**Iron**

Peanut eaters also had significantly higher levels of the mineral iron, which helps deliver oxygen to body cells. A two-tablespoon serving of peanut butter or a one-ounce serving of peanuts provides 4% of the Daily Value for iron.

**Increase in “Good” Fats and Decrease in “Bad” Fats and Cholesterol**

Over 75% of the fat in peanuts is unsaturated, which is known to lower the risk of heart disease when used in place of saturated fat (8). In the study, peanut eaters had lower intakes of “bad” saturated fat and cholesterol, and higher intakes of “good” monounsaturated and polyunsaturated fat.

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Study Shows Peanut Butter and Peanut Eaters Have Leaner Bodies

This study also helps to dispel the myth that higher-fat foods automatically lead to weight gain. The peanut eaters had leaner bodies compared to the non-peanut eaters, as measured by body mass index (BMI), an indicator of body fatness. This finding was true for both men and women and for both children and adults (2). Interestingly, peanut eaters in the study tended to consume more calories than non-peanut eaters, yet they still maintained a lower BMI. Previous studies have also shown that peanut and peanut butter consumption is associated with a lower BMI (9,10).

One explanation may be that peanuts and peanut butter satisfy hunger better than other foods. A study from Purdue University found that when subjects snacked on peanuts, they automatically adjusted their calorie intake and ate fewer calories later in the day (11). Other theories of why peanut eaters are leaner than non-peanut eaters include excretion of some of the calories from peanuts and an increased metabolic rate after peanut consumption. Research is underway to further understand the role that peanuts play in weight control.

Mean BMI of Peanut Users and Nonusers in Adults

Make Those Calories Count!

It's plain to see—peanuts and peanut butter are naturally nutrient-dense foods, providing many nutrients per calorie. Better still, peanuts and peanut butter are often paired with other nutrient-dense foods such as fruits, vegetables, whole-grain breads, and non-fat or low-fat milk.

Try not to fill up on “empty” calories—or calories from foods that supply little or no nutrition, such as refined carbohydrate snacks and calorie-rich beverages. Here are some nutrient-packed snack ideas:

- Top celery sticks with peanut butter and raisins to make “ants on a log.”
- Make your own snack mix by combining peanuts, whole grain cereal, and dried fruit.
- Dip whole-wheat crackers or pita chips in peanut butter for a mini-meal.
- Swirl plain yogurt with fresh berries and unsalted peanuts for a satisfying breakfast.
- Make a smoothie with a tablespoon of peanut butter, a few ice cubes, a cup of skim milk and your favorite fruit!
More Fast Facts About the Nutrients in Peanuts and Peanut Butter:

- Peanuts have the most protein of any “nut” and contain the amino acids arginine, which helps blood flow more easily through your arteries (12).
- Peanuts contain resveratrol, the phytochemical found in red wine that is thought to be beneficial to heart health (13,14). Newer laboratory research connects resveratrol to delaying the aging process and to increasing fat burn in cells (15,16).
- Copper, a hard-to-get nutrient, is found in peanuts and peanut butter.
- Peanuts and peanut butter contain niacin, which is linked to a reduced risk of Alzheimer’s disease (17).
- Peanuts and peanut butter are naturally cholesterol free.
- Research has shown that a plant sterol, beta-sitosterol (ST), which inhibits breast, prostate and colon cancer cell growth as well as protects against heart disease, is present in peanuts and peanut products (18).
- Research from the University of Florida shows that roasted peanuts are as rich in antioxidants as strawberries and blackberries (19).

Conclusions

Research shows that the overall nutrient profile of the diets of peanut and peanut butter eaters is better than that of non-peanut eaters. Although the amount of total fat and calories in the diet of peanut eaters was higher, this was primarily because of increased consumption of “good” monounsaturated fat. In addition, the body mass index of peanut eaters tended to be lower than that of non-peanut eaters.

The bottom line: Children and adults alike can enjoy a delicious and nutritious serving of peanuts and peanut butter everyday as part of a calorie-balanced diet.

References