Have you ever been so hungry you would eat anything put in front of you? Or have you ever had a refrigerator full of food, but nothing quite satisfied you? If so, you probably recognize that these scenarios describe the difference between hunger, a true physiological need for food to survive, and appetite, the desire for specific foods to satisfy a more psychological need, such that just any food won’t do.

Making the distinction between hunger and appetite can lead to successful weight loss or maintenance because it can help you choose foods that satisfy your hunger and appetite at the same time. Generally, foods containing a balance of fat, protein, and fiber, such as peanuts, are thought to contribute to satiety, or feelings of fullness (1).

In addition, foods with fat usually taste the best, so there are no feelings of deprivation if they are incorporated into a diet.

The good news is that contrary to popular belief, eating some higher-fat, more palatable foods such as peanuts and peanut butter can help satisfy hunger and thereby help you lose weight. In fact, research shows that a moderate-fat diet may be more beneficial for weight loss than a low-fat diet (2, 3). However, when increasing dietary fat, it is important to distinguish between types of fat. Scientific studies support choosing more of the “good” unsaturated fat found in peanuts and peanut butter, and less of the “bad” saturated and trans fats found in some meats, high-fat dairy products, and many processed foods (4).

Peanut Eaters Have Lower Body Weights For years, people have shied away from eating foods high in fat such as peanuts, fearing they were fattening. However, a recent review study revealed that frequent nut-eaters do not have higher body weights compared to people who don’t often eat nuts (5). Research shows that peanuts and peanut butter provide satiety (1)—curbing hunger and satisfying appetite—which may lead to lower body weights in people who consume nuts.
Peanuts and peanut butter provide a balance of “good” unsaturated fat, protein, and fiber. Specifically, it is thought that protein and fiber contribute to satiety, which helps with weight loss (1). A study conducted at Purdue University found that peanuts and peanut butter produced more eating satisfaction and feelings of fullness than other high-carbohydrate snacks, such as rice cakes. Peanuts kept participants satisfied for 2 1/2 hours versus a half hour for the rice cakes. Researchers were somewhat surprised to note that subjects who were fed the peanut snacks compensated for the additional calories provided by the peanuts and peanut butter so that they did not add extra calories to their daily diet (1).

Building on this observation, the first clinical study to specifically explain why peanut-eaters have lower body weights than non-peanut-eaters was designed. It showed that when people ate peanuts, they naturally decreased what they ate at other times of the day. Participants in the study spontaneously remarked that they felt full when they included peanuts and peanut butter in their daily diets (6).

The fifteen participants in this study were provided with a test portion of 500 calories of peanuts a day, or about three ounces. Each participant took part in all three of the following study phases:
- a “free-feeding” phase in which participants were given peanuts without dietary guidance (8 weeks);
- an “addition” phase in which participants were asked to add peanuts to their usual diet (3 weeks); and
- a “substitution” phase during which 500 calories of peanuts replaced an equal amount of calories from other fats in the diet (8 weeks).

As expected, participants did not gain weight during the substitution period, as their calorie intake remained similar to their usual intake. In the free-feeding and addition phases, the researchers expected the participants to gain weight, given the additional calories consumed (500 extra calories per day from peanuts). However, the participants gained substantially less weight than was expected. The participants appeared to compensate for the extra calories by eating fewer calories from other food sources (6).

Thus, when peanuts and peanut butter are consumed, it appears a “spontaneous substitution effect” may occur. That is, people may reduce caloric intake from other food sources throughout the day. Because small portions of peanuts provide eating satisfaction, they help dieters balance caloric intake.
Peanut Butter and Peanuts Help You Stick to a Weight-Loss Plan

One of the major problems people have with sticking to a weight-loss plan is that they feel deprived or get tired of eating “diet food.” Researchers usually predict some decline in the pleasantness, or hedonics, of foods eaten daily for a long period of time. Even though some weight-loss plans can result in monotony, in the clinical trial just described, participants reported that continual consumption of peanuts over the course of the study did not make them “tired” of eating them. In fact, the ability to eat enjoyable foods such as peanuts and peanut butter may help people stick to a weight-loss plan for life (8).

Adding evidence to this point, researchers at Harvard School of Public Health and Brigham and Women’s Hospital in Boston found that people following a Mediterranean-style, moderate-fat, weight-loss diet were able to keep weight off for a longer period of time than people following the traditionally recommended low-fat diet. In part, the palatability of the Mediterranean-style diet may have helped contribute to weight loss and weight maintenance (8).

In this study of 101 overweight men and women, half were instructed to eat a low-fat diet (20% calories from fat) and half to eat a moderate-fat diet (35% calories from fat, mostly monounsaturated from peanut butter, nuts, and healthy oils). All participants were given guidelines to eat a diet of approximately 1,200 to 1,500 calories that was low in saturated fat and cholesterol (8).

Only 20% of study participants could stick to the low-fat diet while more than half stuck to the moderate-fat diet. Both groups had lost an average of 11 pounds at the one-year mark. However, as illustrated in Chart A, the moderate-fat group kept a significant amount of weight off for 18 months. On the other hand, the low-fat group did not keep the weight off and even began to regain the weight they had lost. After two years, most of the low-fat group regained all of their weight and more (8).

The moderate-fat diet included foods that are typically not allowed on most weight-loss diets such as peanuts, peanut butter, avocados, and healthy oil. As a result, the diet was more palatable than other weight-loss diets and this may have helped people follow the dietary pattern for the long-term (8).

An added benefit of this approach is that in the process of eating a moderate-fat, weight-loss diet, participants increased the overall healthfulness of their diet. The nutrient analysis illustrated in Chart B shows that although the moderate-fat group was consuming more total fat, the majority of it was “good” mono- and polyunsaturated fat. In addition, the moderate-fat group consumed more protein than the low-fat group.

The moderate-fat group also increased their fiber intake while the low-fat group decreased their fiber intake. This is important because most people do not meet daily fiber recommendations. Peanuts and peanut butter added fiber to the participants’ diets, plus many participants used olive oil or peanut oil on salads or to add flavor to high-fiber vegetables.

Satiety and Weight-Loss for Life
Overall, foods such as peanuts and peanut butter contain a balance of unsaturated fat, protein, and fiber to provide satiety. Finding a diet that satisfies can promote both initial and, more importantly, sustained weight loss. Moreover, allowing yourself to eat enjoyable foods while you are watching your weight can help you lose and maintain weight successfully for life!
### Sample Meals: Higher Unsaturated-fat, Lower-carb Diet

Try these meals modified from the Harvard weight-loss study to help curb your hunger and lose weight (9).

<table>
<thead>
<tr>
<th>Breakfast</th>
<th>Lunch</th>
<th>Dinner</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 multi-grain waffles</td>
<td>2 ounces lean ham</td>
<td>3 ounces broiled haddock</td>
</tr>
<tr>
<td>3/4 cup red raspberries</td>
<td>1/2 ounce low-fat Swiss cheese</td>
<td>1/2 cup wild rice, cooked</td>
</tr>
<tr>
<td>1 tablespoon peanut butter</td>
<td>2 teaspoons mustard</td>
<td>1 cup green beans</td>
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<tr>
<td>2 teaspoons maple syrup</td>
<td>2 leaves lettuce</td>
<td>1 cup spinach salad</td>
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<tr>
<td>1/2 cup nonfat milk</td>
<td>2 slices fresh tomato, 1/4-inch thick</td>
<td>2 teaspoons olive oil</td>
</tr>
<tr>
<td></td>
<td>2 slices 100% whole-wheat bread</td>
<td>2 teaspoons vinegar</td>
</tr>
<tr>
<td></td>
<td>1 fresh kiwi fruit, medium</td>
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</tr>
<tr>
<td>Snack</td>
<td></td>
<td></td>
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<tr>
<td>1 ounce peanuts</td>
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</table>

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<thead>
<tr>
<th>Breakfast</th>
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</tr>
</thead>
<tbody>
<tr>
<td>3/4 cup oatmeal</td>
<td>2 ounces tuna</td>
<td>3 ounces pork tenderloin, broiled</td>
</tr>
<tr>
<td>1/2 cup nonfat milk</td>
<td>1/4 cup celery, chopped</td>
<td>1 small sweet potato</td>
</tr>
<tr>
<td>1 apple, medium</td>
<td></td>
<td>1/2 cup beets, canned, sliced</td>
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<tr>
<td>1 tablespoon peanut butter</td>
<td></td>
<td>1 cup zucchini, steamed</td>
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<tr>
<td></td>
<td></td>
<td>1 cup tossed green salad</td>
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<tr>
<td></td>
<td></td>
<td>2 teaspoons olive oil</td>
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<tr>
<td></td>
<td></td>
<td>2 teaspoons balsamic vinegar</td>
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<td>Snack</td>
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<td>1 ounce peanuts</td>
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</tbody>
</table>

**Two-Day Averages:** 1200 calories; 34% calories from total fat (7% calories from saturated fat); 43% calories from carbohydrates; 23% calories from protein, 25 grams of fiber

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**Go to www.peanut-institute.org for:**

- Peanut and peanut butter nutrition research
- Recipes
- Meal plans
- Educational materials

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**The Peanut Institute** is a non-profit organization that supports nutrition research and develops educational programs to encourage healthy lifestyles.

**For Further Information:**

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**References**

Almost two-thirds of American adults are overweight (1). However, contrary to popular belief, nut eaters tend to have lower body weights (2). In fact, eating foods full of flavor and healthful fat such as peanuts and peanut butter can lead to weight loss and long-term weight maintenance. Doing so may even improve your risk factors for heart disease.

**Research Up-Date:**
- The new word is, “Don’t go too low-fat.” There is new evidence that a higher unsaturated-fat diet helps with weight loss while improving heart disease risk. A new controlled clinical trial compared a low-fat diet to a higher unsaturated-fat diet that provided 35% of calories from fat, half of which came from peanuts, peanut butter, and peanut oil. The low-fat diet provided 20% of calories from fat. Both groups lost similar amounts of weight during the six-week weight-loss period, about 15 pounds, and kept it off for the four-week maintenance period.

However, in terms of heart disease risk factors, the higher unsaturated-fat diet reduced the risk of cardiovascular disease by 14% compared to baseline. Both diets decreased total and low-density lipoprotein (LDL) cholesterol, but the moderate-fat diet had the added benefit of maintaining “good” high-density lipoprotein (HDL) cholesterol, decreasing triglycerides, and lowering the ratios of total and non-HDL cholesterol to HDL cholesterol throughout weight loss and weight maintenance (3).

- A moderate-fat, weight-loss diet using peanut butter, nuts, and healthy oils also promotes long-term weight loss (4). Harvard researchers found that people following a Mediterranean-style, moderate-fat, weight-loss diet (35% calories from fat)...

**Peanut Portion Pointers:**
- One ounce of peanuts is a small handful, or about 40 pieces. Look for single-serving packets at the store to help with portion control.
- Two tablespoons of peanut butter is about the size of a ping-pong ball. Keep one on your kitchen counter in your fruit bowl.
were able to keep weight off for a longer period of time than people on a traditional low-fat diet (20% calories from fat).

Both groups lost an average of 11 pounds at the one-year mark. However, more than 50% of the moderate-fat group stuck with the diet, while only 20% of the low-fat group stuck with the diet. Further, the moderate-fat group kept a significant amount of weight off for 18 months, whereas those who continued in the low-fat group did not. In fact, after two years most people in the low-fat group regained all of their weight and more. Eating satisfying foods with healthful fat like peanut butter and peanuts may help you lose and maintain weight for life.

Peanuts provide satiety, or eating satisfaction, which appears to promote weight loss (5). Research has shown that protein and fiber appear to increase satiety. Peanuts contain 6 grams of protein and 2 grams of fiber per ounce. A clinical study showed that when people ate about three ounces of peanuts daily they spontaneously compensated for the extra calories by eating fewer calories from other foods, even when they were told not to (6). Therefore, peanuts appear to curb appetite and may limit caloric intake to promote weight loss as a result.

Diet and Exercise: A Balancing Act
Eating 3,500 calories more than your body needs causes one pound of weight gain. Therefore, reducing your normal caloric intake by 500 calories a day will result in one pound of weight loss per week. However, expending calories through exercise is essential for maximal weight loss. Experts recommend getting one hour of physical activity per day most days of the week (7). But every little bit helps burn calories to lose weight, so try to increase activity whenever you can. For example, take the stairs, walk to nearby stores, and park far from your destination so you can walk more.

Quick Facts about Peanuts & Peanut Butter

- Peanuts and peanut butter fit well into a high-protein, low-carbohydrate diet. They provide 2 grams of fiber and just 4 grams of “net carbs” (total carbohydrates minus fiber).
- Regular peanut butter contains the same amount of calories as reduced-fat peanut butter and provides more of the “good,” heart-healthy unsaturated fat.

References:

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