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FOOD FOR THOUGHT

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Using Peanut Butter and Peanuts in an Energy-Balanced Diet

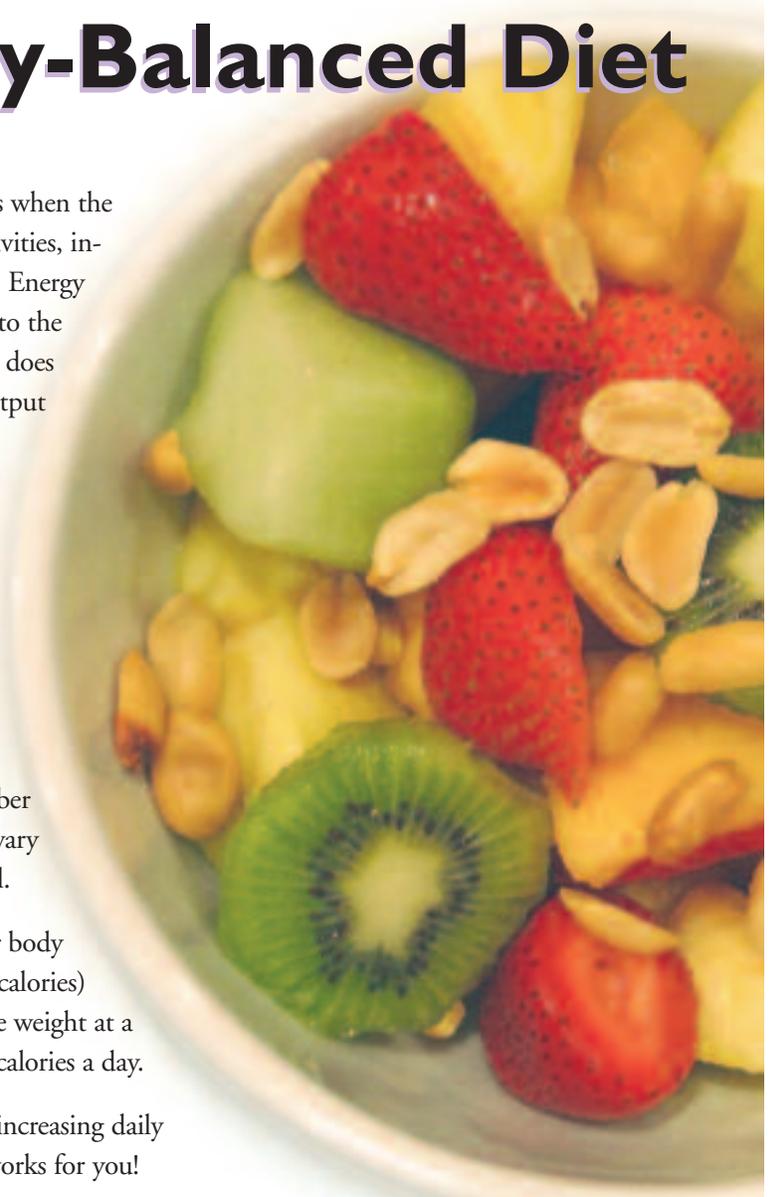
What is Energy Balance? Simply put, energy balance is when the calories you consume equal the calories you use for daily activities, including walking, talking, eating, exercise, and even sleeping. Energy imbalance occurs when the number of calories consumed is not equal to the number of calories used. To maintain a healthy weight, energy balance does not necessarily need to be achieved everyday, but energy intake and output should be balanced over the course of a week, for example. All in all, energy balance should be a life-long goal.

- WEIGHT GAIN** calories consumed are **GREATER THAN** calories used
- WEIGHT LOSS** calories consumed are **LESS THAN** calories used
- WEIGHT MAINTENANCE** calories consumed are **EQUAL TO** calories used

The estimated daily calorie requirement for adults in the United States is 2000, as noted on the Nutrition Facts Panel of food labels. Remember that this is an estimated average and that individual calorie needs will vary depending on age, weight, height, body composition, and activity level.

In order to lose weight you should eat fewer calories per day than your body needs. A daily deficit of 500 calories (or a total weekly deficit of 3500 calories) will produce approximately one pound per week in weight loss. To lose weight at a rate of two pounds per week you need to reduce your intake by 1000 calories a day.

A calorie deficit can be achieved by 1) reducing total daily calories, 2) increasing daily physical activity, or 3) a combination of the two. Find the plan that works for you!



Did you know? Research shows that peanut butter and peanuts can help people achieve success on a weight-loss diet. See page 2.

Balancing Macronutrients in the Diet— Protein, Fat and Carbohydrate— to Achieve Energy Balance

Protein

Research from the Institute of Medicine of the National Academies recommends that protein should comprise anywhere from 10 to 35 percent of your total daily calories (1). Protein, along with a reduced energy intake, helps with body weight regulation (2,3) and therefore can help you achieve energy balance. Some research suggests a mechanism for this may be a high-protein, low-carbohydrate diet increases the number of calories burned after a meal (4).

Food for Thought

Peanuts are a high protein snack, with about 7 grams of plant protein per serving (28 g or about 1 ounce), according to the US Department of Agriculture data. Peanut butter, with 8 grams of protein per serving, is an excellent sandwich spread. Overall, peanuts and peanut butter are smart protein choices because they are cholesterol-free and lower in saturated fat than animal sources of protein.

Fat

The Institute of Medicine of the National Academies recommends that fat should comprise 20 to 35 percent of your total daily calories, with the majority coming from “good” unsaturated fat sources, such as mono- and polyunsaturated fat (1). Research has shown that a moderate-fat diet helps people lose weight and keep it off longer than a traditional low-fat diet (5). In the study, participants used small amounts of healthy fats, including peanuts, peanut butter, olive oil and

avocados, in a calorie-controlled diet. When including fat in any type of diet it is important to choose mono- and polyunsaturated fats over saturated fats found in full-fat milk, cheese and yogurt, many baked goods, and meat and meat products. Peanut butter and peanuts provide primarily good unsaturated fat that research has shown helps to promote heart health as part of a balanced diet.

Food for Thought

Data from the Harvard School of Public Health’s Nurses’ Health Study shows that substituting peanuts and peanut butter for saturated fat can reduce the risk of heart disease by 45% (6).

Other large population studies, such as the Adventist Health Study, the Iowa Women’s Health Study and the Physicians’ Health Study, all show a linear relationship between cardioprotective benefits and peanut and nut consumption (7).

A growing database of clinical studies indicates that part of the beneficial effect of peanuts and peanut butter may be due to their fatty acid composition, particularly when they replace food sources of saturated fatty acids, as well as refined carbohydrates, in the diet. Heart-health benefits may also come from nutrients in peanuts such as fiber, magnesium and other bioactive compounds (7,8).



Carbohydrate

The Institute of Medicine of the National Academies recommends that carbohydrate should comprise 45 to 65 percent of your total daily calories (1). Carbohydrate provides energy for the body and is an important part of any eating plan. Just as there are different types of fat, there are different types of carbohydrates as well. Whole-grain carbohydrates, such as whole-wheat bread and oatmeal, are good sources of beneficial fiber, whereas refined carbohydrates, such as white bread, most cookies and crackers, and white rice are not. Carbohydrates that are higher in fiber release energy in the body at a slower rate, helping you feel full longer. Many western populations fall short of meeting dietary recommendations for fiber.

The daily fiber recommendation in the United States is 14 grams per 1000 calories consumed (9). This means:

If you are eating a	you need...
1500-calorie diet	21 grams of fiber each day
2000-calorie diet	28 grams of fiber each day
2500-calorie diet	35 grams of fiber each day

Food for Thought

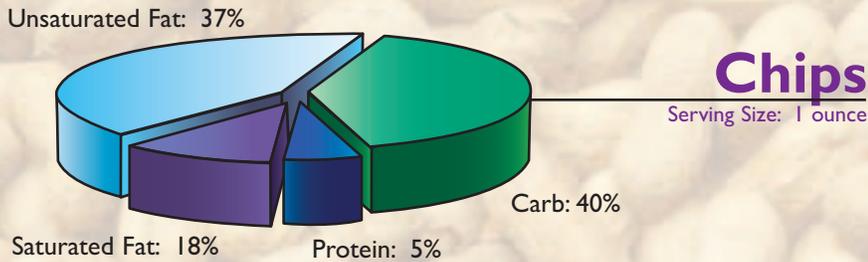
Data from the Harvard School of Public Health’s Nurses’ Health Study shows that a diet high in non-whole grain carbohydrates and low in fiber is associated with an increased risk of type 2 diabetes (10). Previous analysis from the Nurses’ Health Study have shown that substituting peanuts and nuts for refined carbohydrates in the diet can reduce the risk of heart disease by 30% (6).

Peanuts v. Chips v. Rice Cakes

Calories from macronutrients

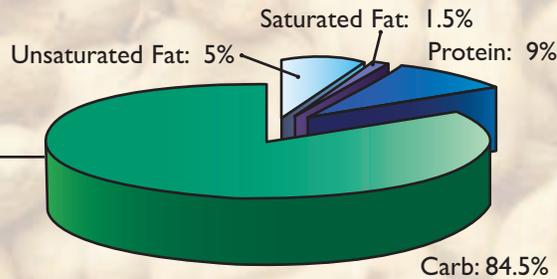
Peanuts

Serving Size: 1 ounce



Chips

Serving Size: 1 ounce



Rice Cakes

Serving Size: 2

*Source: USDA Nutrient Database, Release 17 (2004)

All in all, peanuts and peanut butter are high in protein and healthy fats, and lower in non-whole grain carbohydrates than other snack foods, such as pretzels and crackers. Peanuts and peanut butter contain more fiber per serving than a typical carbohydrate-rich snack. Research from Purdue University has shown that snacking on peanuts and peanut butter can ward off hunger for two and a half hours versus rice cakes, which left participants hungry after just 30 minutes. Researchers believe that it is a combination of the protein and fiber in peanuts that helps to increase the feelings of fullness (11).

Portion Distortion

From the early 1980s to the mid 1990s, mean body mass index (BMI) as well as prevalence of overweight (BMI greater than or equal to 25) increased in virtually all Western European countries, Australia,

the United States, and China. (12) In each of these countries, the total available calorie supply per person also increased, showing a close relationship between increased available calories and increases in overweight and obesity (12).

Along with increasing availability of food, food portions have changed over time. Consider these changes in the United States in the last 20 years, compared to the US Department of Agriculture's recommended standard portion sizes (13):

- Hamburgers have grown 112% larger,
- Steaks are 224% bigger,
- Pasta servings are 480% bigger, and
- Cookies are 700% larger.

This phenomenon is commonly referred to as "portion distortion." If you find yourself faced with portion distortion, here are some tips for "outsmarting" large portions....

- At home, using a smaller plate makes normal size portions seem larger.
- Do not feel you have to clear your plate at home or in a restaurant.
- Use plastic containers, small bowls or plastic bags to measure out one serving of your favorite snacks, which usually come in bulk bags or large jars.
- Listen to your stomach and only eat what you need. It will take some time for "full" signals to reach your brain, so eat slowly.
- Share large portions of sweets. For example, split a box of candy at the movies or share a dessert when you are eating out.
- Estimate portions when you can. For example, one serving of peanut butter is about the size of a golf ball, a serving of snack peanuts is a small handful and a serving of chicken or steak is the size of a deck of cards.



Healthful Food Pairings with Peanuts and Peanut Butter

One approach to balancing calories is "food pairing," which can be described as pairing a somewhat calorie-dense food, like peanut butter, with another healthy food that is less calorie-dense, like fruits and vegetables. Try these food Pairing to optimize the nutrients you get from your meals and snacks:

- Oatmeal swirled with a tablespoon of peanut butter makes a hearty breakfast.
- Adding chopped peanuts to fruit salad satisfies hunger longer.
- Sliced apples spread with peanut butter are fun for kids.
- Peanuts can be sprinkled over salad greens or tossed with steamed vegetables.
- Melted peanut butter drizzled over non-fat ice cream makes a sweet treat.

Let the Weight Loss Begin— And Don't Forget the Exercise!



What to Look for in a Healthy Weight- Loss Plan

1. Promotes weight loss of 1 to 2 pounds per week (no more)
2. Includes all major food groups
3. Flexible enough to be adapted to a special occasion or vacation
4. No “banning” of certain foods or food groups
5. Encourages more activity throughout the day

Recommendations for Physical Activity

Health experts recommend 30 to 60 minutes of moderate physical activity on most days to prevent weight gain. To lose weight or to maintain weight-loss, 60 to 90 minutes of physical activity on most days is recommended (9).

Here are some tips for staying active:

- Engage in physical activity, such as dancing or playing basketball, during leisure time rather than sedentary activities such as playing computer and video games.
- Accumulate 60 minutes of physical activity throughout the day—short bouts of activity (e.g., 10 minutes) count towards your daily goal!
- Catch up with friends by taking a brisk walk rather than meeting for a latte.

Conclusion

Overall, energy balance is a delicate equation of calories consumed and calories used. Balance energy-dense foods, like peanut butter, with less energy-dense foods, such as fruits and vegetables, to control daily calorie intake. Just a small amount of peanuts or peanut butter packs a nutritional punch and keeps you feeling satisfied. And don't forget the important role that physical activity plays in any healthy weight-loss or weight-maintenance plan!

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

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