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# FOOD FOR THOUGHT

Volume 8, Issue 3

## Weight-Loss Science Highlights: Peanuts and Peanut Butter Can Play an Important Role in Weight-Loss Diets

### Research Shows Moderate-Fat Weight-Loss Diet with Peanuts and Peanut Butter is Better for Your Heart

Although a low-fat diet has been recommended for weight-loss for the past 20 years, newer research shows that a calorie-controlled, higher unsaturated-fat diet may produce better weight-loss results. Recent research from Pennsylvania State University shows that a higher unsaturated-fat, peanut-rich, weight-loss diet reduces the risk of cardiovascular disease by 14% compared to baseline, whereas a low-fat diet does not. This ground-breaking study demonstrates that the type of weight-loss diet you choose is important for long-term health (1).

This was not the “all-the-fat-you-can-eat” Atkins diet, which allows up to 20% of total calories from saturated fat—far exceeding current dietary recommendations for less than 7%. Nor was it the severely fat-restrictive very low-fat plan that provides less than 10% of calories from total fat, which is far from palatable. Rather, this study used a peanut-rich diet that is a truly balanced diet and provides a healthy range of “good,” unsaturated fat, carbohydrate, fiber, and protein. This moderate-fat diet also allowed satisfying foods such as peanuts and peanut butter. More importantly, it helped study participants achieve

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#### Did you know?

Most of the fat in peanuts and peanut butter is healthful mono- and polyunsaturated fat, the type that can lower cholesterol.

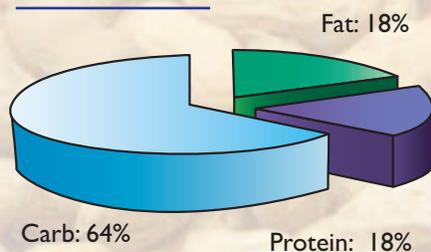
weight loss and reap cardiovascular benefits (1).

Participants in both the low-fat group and the higher unsaturated-fat group lost 2.5 pounds per week during the weight-loss phase, which lasted six weeks. During this phase, both groups lowered total and “bad” low-density lipoprotein (LDL) cholesterol. (1)

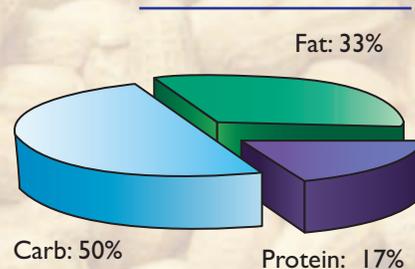
Following the weight-loss phase, subjects were monitored and maintained their weight over the next 4 weeks (the weight maintenance phase). Here’s where the researchers began to see differences between the groups. During the weight maintenance phase, those on the higher unsaturated-fat, peanut and peanut butter diet had the added cardiovascular benefit of maintaining “good”

## Composition of the Diets in the Moderate-Fat versus Low-Fat Weight-Loss Study

### Low-Fat Diet



### Moderate-Fat Diet



Pelkman et al, Am J Clinical Nutr, 2004

show that, even with weight-loss, a low-fat diet did not favorably affect triglyceride levels. The low-fat group saw triglycerides rebound to pre-weight loss levels during weight maintenance,

as shown in the graph (1). Low-fat diets, often recommended for weight-loss, are higher in carbohydrates, and therefore tend to raise triglyceride levels.

The higher-fat, peanut and peanut butter diet group saw a favorable drop in the ratios of their “bad” cholesterol to “good” cholesterol. Conversely, there was no change in these important ratios in the low-fat group. Scientists think that measuring cholesterol ratios may be a more comprehensive risk

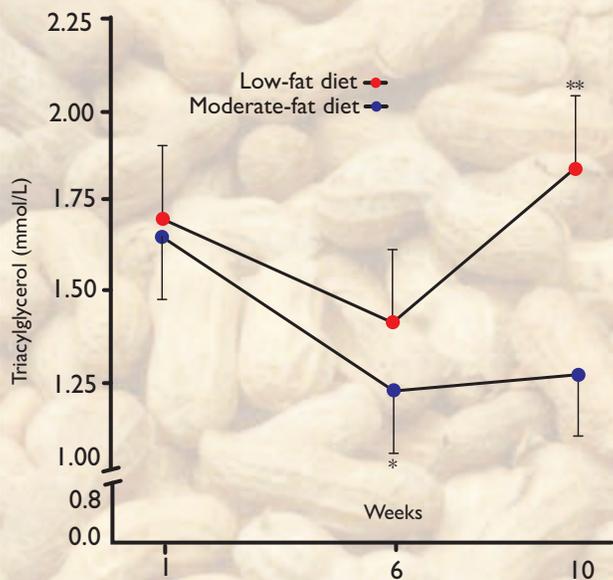
assessment tool than looking at the bad LDL cholesterol alone.

The researchers say in the paper that, “The findings of this current study are significant because they demonstrate that markedly lowering total fat intakes may

have adverse consequences on reductions in the risk of CVD, even in response to weight loss.” Further, “Inclusion of popular food sources of monounsaturated fats, such as peanuts and peanut butter, may promote better adherence to a calorie-reduced diet intended for weight loss.” (1)

Fifty-three overweight and obese adults participated in the 10-week controlled clinical trial. Half consumed a higher unsaturated-fat diet (50% of fat came from peanut products) and half consumed a low-fat diet. Both diets were low in saturated fat (less than 7 percent), low in cholesterol (approximately 200 mg), and contained about 17 grams of fiber daily. ■

## Triglyceride levels during weight loss and weight maintenance



Pelkman et al, Am J Clinical Nutr, 2004

high-density (HDL) cholesterol and lowering triglyceride levels, both important risk factors for heart disease.

The low-fat diet group saw a significant drop in “good” HDL cholesterol levels. Furthermore, this is the first study to

## Overall Conclusions

A moderate-fat diet with peanuts has benefits during weight loss and weight maintenance because it improves the following risk factors for cardiovascular disease (CVD):

- Maintains “good” HDL cholesterol levels
- Lowers triglycerides
- Lowers ratio of “bad” to “good” cholesterol (total and non-HDL cholesterol to HDL cholesterol)

Overall, the peanut-rich diets reduced the risk of CVD by 14% compared to baseline, whereas a low-fat diet did not (1).

# Mediterranean-Style Weight-Loss Diet with Peanuts and Peanut Butter is a Favorite Among Participants and Successful for Keeping Pounds Off

Researchers at Brigham and Women's Hospital and the Harvard School of Public Health, found that people following a Mediterranean-style, moderate-fat, weight-loss diet with healthy fats were able to keep weight off for a longer period of time than people following the traditionally recommended low-fat diet. In a free-living study population, this higher "good" fat diet, which was successful for weight loss and weight maintenance, also contributed to satiety and feelings of fullness (2).

The study included 101 overweight men and women. Half of the participants were instructed to eat a low-fat diet (20% calories from fat) and half were instructed to eat a moderate-fat diet (35% calories from fat), mostly monounsaturated from peanut butter, peanuts, nuts, and healthy oils like peanut oil and olive oil. 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.

The researchers found that only one in five study participants could stick to the low-fat diet, while more than half stuck to the moderate-fat diet. Both groups lost an average of 11 pounds in the first year. However the moderate-fat group kept a significant amount of weight off for 18 months, whereas the low-fat group did not. When the moderate-fat group was weighed after 2 1/2 years, it was found that they still kept a significant amount of weight off. Many of the low-fat dieters gained all of the weight back, plus a bit more (2).

## Portion Control — the Key to Any Weight Loss Plan

- One serving of peanut butter is equivalent to the size of a golf ball.
- One serving of peanuts is equal to a small handful.



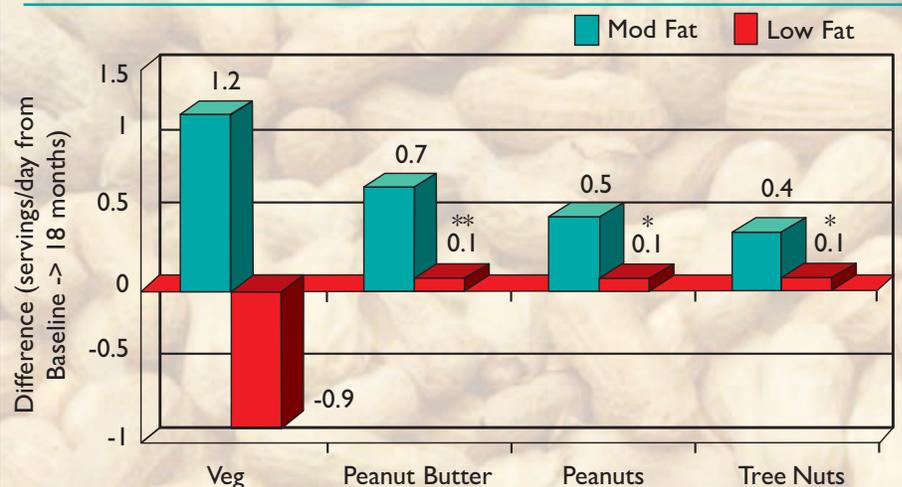
## Meal Patterns of the Dieters

As interesting as the weight loss itself, is what the participants ate in the moderate-fat and low-fat groups. Participants were given dietary guidance, but they were allowed to make their own food choices throughout the study. The moderate-fat diet group was instructed to add small amounts of healthy fats to their calorie-controlled diet. This might include using a small amount of olive or peanut oil to sauté vegetables, snacking on a handful of

peanuts, or using a tablespoon of peanut butter on their toast in the morning. Including small amounts of healthy fats in their diets actually improved the diet quality of the moderate-fat group. They had a higher consumption of vegetables, peanut butter, peanuts, and tree nuts versus the low-fat group. People following the moderate-fat diet increased their vegetable consumption by one serving per day and their peanut butter consumption by almost a serving (32 grams or 2 tablespoons) each day, compared to baseline. This is illustrated in the nutrient analysis chart below (2).

The moderate-fat group had a better quality diet overall because they consumed greater amounts of fiber, protein, and "good" unsaturated fat compared to people on the lower-fat diet. ■

## Food Intake of the Moderate-Fat and Low-Fat Weight-Loss Dieters



McManus et al, International J of Obesity, 2001

\*\* P=0.002

\*P<0.01

# How Do the Popular Diets Stack Up?



A recent trial of 160 overweight and obese adults examined four popular diets (Atkins, Zone, Weight Watchers, and Ornish) with various fat and carbohydrate contents. The two main outcomes of the study were 1) adherence to the diets and 2) cardiac risk factor reduction. The researchers concluded that, "Each popular diet modestly reduced body weight and several cardiac risk factors at one year. Overall dietary adherence rates were low, although increased adherence was associated with greater weight loss and cardiac risk factor reductions for each diet group." (3)

On average, about 58% of the participants in each diet group dropped out. This study proves the importance of finding a diet that is both palatable and acceptable to participants. Including favorite foods like peanuts and peanut butter in a weight-loss eating plan can help people achieve maximum health benefits—both weight loss and cardiac risk reduction—because they can stick to the diet for a longer period of time.

## Tips for Using Peanuts in a Moderate-Fat Weight-Loss Diet

- Pair peanut butter with low-calorie fruits and vegetables, such as celery sticks, baby carrots, pepper slices, or apple quarters.
- Choose peanuts from the vending machine for a mid-afternoon snack that satisfies hunger.
- Instead of a deli sandwich, have 2 tablespoons of peanut butter on a whole-wheat pita.
- Substitute peanuts for beef in your favorite stir-fry.



## Conclusion: Peanuts and Peanut Butter Fit into Many Different Weight-Loss Diets

Peanut butter and peanuts not only fit into many weight-loss diets, but they should be part of a diet plan. Incorporating favorite foods into a weight-loss diet can increase adherence, providing greater health benefits. In addition, peanuts contain healthy fats and provide important nutrients, such as fiber, folate, magnesium, and vitamin E, which are often lacking in low-carbohydrate diets (4). ■

## Peanuts — Mother Nature's Multi-Vitamin?

The 2005 U.S. Dietary Guidelines identify vitamin A, vitamin E, vitamin C, calcium, magnesium, potassium, and fiber as lacking in typical American diets. U.S. Department of Agriculture survey data shows that eating a daily serving of peanuts or peanut butter can help children and adults meet nutrient needs. Peanut butter and peanut eaters had increased levels of vitamin A, vitamin E, folate, calcium, magnesium, zinc, iron and dietary fiber in their diets. What's more, peanut eaters also had lower BMIs (Body Mass Index) than non-peanut eaters (5).

Penny Kris-Etherton, PhD, RD, distinguished professor of nutrition, Pennsylvania State University, and author of the study, says, "Including peanuts and peanut butter daily in a calorie-balanced diet can help consumers achieve important nutrient goals set by the U.S. government." For this reason, peanuts have often been referred to as "Mother Nature's" multi-vitamin.

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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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- Peanut and peanut butter nutrition research
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