



Some Fad Diets' Promises Sound Too Good to Be True

Many overweight Americans, as well as some who just want to lose 5 pounds, keep searching for an easy, guaranteed weight-reducing diet. Promoters of such diets are delighted to aid in this consumer quest, so the number of fad diets continues to increase along with the promoters' profits.

Fad diets tend to be nutritionally unbalanced, to focus attention on only one type of food or nutrient, to appeal to the consumer with faulty logic, to neglect the issue of weight maintenance, or to make excessive claims for weight loss.

The body stores excess energy, measured in kilocalories, as fat. One pound of fat represents 3,600 kilocalories of energy. To lose one pound of fat, you must expend 3,600 kilocalories more than the number in the food you eat.

It is not unusual to see claims by a fad diet that you can lose 10 pounds in one week. Take a closer look at this excessive claim: Ten pounds of fat means 36,000 kilocalories. To lose that by dieting in one week, you would have to eat at least 5,000 kilocalories per day less than you normally would. However, the average U.S. adult eats only about 2,500 per day. How can you eat negative 2,500 kilocalories?

Well, you could increase your exercise, but running 5 hours a day is beyond most of us. That's how much exercise it takes to use up 5,000 kilocalories.

On most fad diets, a large part of the weight lost is just water, not

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fat. Shifts in the body's balance of water occur on the diets, and the body excretes that water in the urine. As soon as you stop dieting and begin eating normally, the water balance returns to normal and the lost weight is quickly replaced.

The goal of losing weight should be to lose fat, not water! A safe weight loss or fat loss is 8 to 10 pounds per month. That means eating about 1,200 kilocalories per day less than the amount of energy you expend, which for typical activity levels allows you to eat about 1,200 kilocalories per day. This rate of loss allows the body to change its fat content safely and gives the skin time to adjust to its smaller size.

Yo-yo Effect

The issue of maintenance of the reduced weight is critical. Fewer than 10 percent of obese people who lose weight can maintain that loss for one year. Far more commonly, the person rapidly regains the weight lost. Nutritionist Jean Mayer has called this the "yo-yo effect." Frequently, the person who has lost weight regains **more** than he or she has lost, so the pattern builds on itself. The yo-yo effect is a frustrating, self-defeating and unhealthy pattern. Keeping weight off is even more important than getting weight off.

Fad diets now popular include: antidigestive agents, low-carbohydrate diets and protein-sparing modified fasts.

Starch-blocker was the most popular of the anti-digestive agents before it was banned last fall. Promoters claimed that, by consuming starch-blocker, you could eat all the pasta or other starch you wanted and still lose weight. An attractive promise, isn't it? The starch-blocker would prevent digestion of starch by inhibiting the activity of the digestive enzyme amylase, said the claims.

Though starch-blocker does inhibit the enzyme in a test tube, it does not appear effective in a human's gut. George Bollin and co-workers at Baylor University, and Gerald Carlson's group at the University of Wisconsin have studied the effectiveness of starch-blocker in human volunteers. Starch-blocker did not inhibit the digestion of starch even at twice the recommended dose. Its ineffectiveness may be because the human digestive system may contain more than enough amylase to digest the starch eaten.

On October 5, 1982, the U.S. Food and Drug Administration banned the sale of starch-blocker after reports of hospitalization of 27 users for nausea and gastrointestinal disorders.

Glucomannan, another anti-digestive dieting aid, has grown in popularity since the banning of starch-blocker. It is a bulking agent that swells in the gut, which is supposed to reduce appetite. Scientific testing of glucomannan has not been reported, so its effectiveness in weight reduction and its possible side effects are virtually unknown.

Low-Carbohydrate Diets

Low-carbohydrate diets, such as the "Dr. Atkins Diet Revolution" or "Dr. Stillman's Quick Weight Loss," severely restrict how much carbohydrate you can eat or drink, but allow virtually unlimited protein and fat. Carbohydrate is portrayed as the evil food that keeps you from losing weight. This focus on a single type of food leads to a severely unbalanced diet. These diets tend to be deficient in vitamins A, D, C, E, thiamin, folate and riboflavin, and in the minerals potassium, calcium, iodine, copper, zinc and fluoride.

Food group	Food examples	Serving size
Meat and fish 	Hamburger, lean Chicken, lean Tuna fish, packed in water Cheese, e.g. Cheddar or Swiss Beans, e.g. pinto or black Peanut butter	3-4 ounces 3-4 ounces 6 ounces 1½-2 ounces 1 cup 2 tablespoons
Vegetable 	Leafy greens Mixed salad Broccoli, cauliflower, green beans Peas, turnips, carrots, tomatoes	1 cup 1 cup 1 cup ½ cup
Fruit 	Banana, peach, apple, pear, orange Berries, melon Juice	1 item 1 cup ½ cup
Grain 	Bread Muffin, tortilla Prepared cereal Rice or noodles, cooked Potato Corn Bagel	1 slice 1 item 1 ounce 2/3 cup 1, small ½ cup ½ item
Dairy 	Skim milk Yoghurt, low-fat Cottage cheese	1 cup 1 cup 1 cup

Table 1. Serving Sizes in Basic Food Groups.
 A well-balanced weight-reduction diet of 1,200 to 1,600 kilocalories per day should include 2 servings daily from the meat and fish group, 2 to 3 vegetable servings, 1 to 3 fruit servings, 3 to 4 servings from the grain group, 1 to 2 dairy servings based on skim milk, and 1 serving from the fats group.

One claim for these low-carbohydrate diets is suppression of appetite. However, studies by James Rosen and co-workers at the University of Vermont found no differences in appetite between obese volunteers eating a low-carbohydrate diet and others eating a balanced diet with the same number of calories.

Furthermore, low-carbohydrate diets can cause serious side effects. One is ketosis, a dangerous buildup of ketones from incomplete breakdown of fats. Others are dangerously low levels of water in the body, excessive levels of fat in the blood, and fatigue. Your body needs carbohydrate. One type of carbohydrate, glucose, is the major source of energy your brain uses.

Finally, carbohydrates are less calorically dense than fat: Per gram, carbohydrate has about 4 kilocalories, compared to about 9 for fat. Carbohydrates should be included in a weight-loss diet to provide glucose for the brain and to spare digestion of protein.

Protein-sparing modified fasts (PSMF), such as the "Cambridge Diet," are very low-calorie diets (200 to 400 kilocalories per day) that are high in protein, with vitamin and mineral supplements. These diets are unbalanced and not nutritionally sound. In very massively obese patients, weighing more than 170 percent of ideal body weight and under a physician's supervision, PSMF can be an effective, short-term, rapid method of weight loss. However, the effectiveness and safety of PSMF for a slightly overweight or even moderately obese

person (especially not under a physician's care) have not been studied scientifically.

Maintenance of weight loss was poor for the very obese patients who were studied. Fewer than 9 percent of the PSMF dieters maintained their weight loss for 2 years. Furthermore, weight loss from repeated uses of the modified fast was poor, with only 15 percent of the dieters losing weight on a second trial, compared with 80 percent on their first trial.

Side effects of a PSMF diet are ketosis, sluggishness, dizziness, headaches, hair loss, cramps or nausea.

These modified-fast diets may have another serious problem. They may contribute to the yo-yo effect of dieting. While a person is on a very low-calorie diet, his or her metabolism slows down to adapt to the cutback in food-energy supplied. The net result is a decrease in the energy needed by the body. How long these reductions in energy requirements persist after the modified fasting ends we do not know. Possibly, the drop in energy needs contributes to the rapid regaining of weight when the person begins eating normally again. The subject needs further investigation.

Eating Right

In contrast to fad diets, a balanced diet with 1,200 to 1,600 kilocalories per day meets nutrient needs and allows a reasonable weight loss of up to 2.5 pounds per week. Coupled with an exercise program, this kind of diet can provide a safe, effective means of losing weight, unlike most fad diets.

A balanced diet should include, each day, 3 or 4 servings from the bread and cereals group, 2 skim milk servings, 2 fruit servings, 2 or 3 vegetable servings, 2 meat-group servings, and one serving (equal to 2 teaspoons of margarine or 2 tablespoons of salad dressing) from the fats group. See Table 1.

Losing weight while eating a balanced diet like this helps you learn to change your eating habits. Changing your eating habits is the key to maintaining the weight loss. Choose a diet you can live with, because if you're successful you may live with it for a long time.