

Low-Carb, High-Protein Diets

*Caitlin Hosmer, M.S., R.D., L.D.N., Brigham and Women's Hospital
Previously published on Intellihealth.com, August 22, 2003*

The most popular question patients ask us in our clinical practice these days is, "What do you think about the Atkins Diet?" We would like to re-state the question and give a response that, hopefully, puts some of the hype into perspective.

What Is A Low-Carbohydrate/High-Protein Diet?

First, clear definitions are important when asking and answering this question. There is a wide spectrum of low-carbohydrate/high-protein diets ranging from the literal Atkins Diet as prescribed, to the eating pattern recommended for diabetics, who need to be especially careful about foods that affect their blood sugar (primarily carbohydrates). Other choices include Protein Power, Sugarbusters, The Zone, and many variations of these specific plans that people adapt for themselves in the process of making a diet work for themselves in the process of making a diet work for them.

The major advantage of a low-carbohydrate/high-protein diet is that it eliminates, or at least severely restricts, refined carbohydrates. Refined carbohydrates (such as white bread, white rice, white pasta, most crackers, tonic, sweets, jams and jellies) give you a sugar jolt. By reducing these types of carbohydrates, the blood sugar and insulin levels can be better controlled. In addition, there are other potential health benefits, such as weight loss and reduced blood-triglyceride levels. The down side to the carb-free or very-low-carb is that in eliminating all or most carbohydrates, you do so at the expense of some "healthier" carbs that are found in fruits, vegetables, and whole grains (such as brown rice, stoned ground whole grain bread, whole wheat pasta, and the like).

One helpful way to evaluate carbohydrates is the glycemic index (GI), a measure of how quickly blood sugar rises when you eat particular foods. Low GI foods have a small impact on blood sugar and include most whole grains and vegetables, along with many fruits. High GI raise blood sugar more quickly; these foods include mostly white, processed grains/starches, juices, desserts, candy, soda and some fruits.

The fast, high jolt in blood sugar from high GI foods causes higher insulin levels. Insulin is a hormone that causes hunger by taking the sugar out of your blood and giving it to your cells to either use as energy or store as fat. Since the blood sugar from high GI foods disappears faster (it's turning into fat), these foods cause less satisfaction and fullness, which can lead to overeating, higher caloric intake and, ultimately, weight gain. Also, high GI foods have fewer nutrients than low GI foods - those "empty" calories.

Unfortunately, high GI foods make up the bulk of carbohydrates in the average American diet. If your high-protein diet is helping you limit your high GI food intake then you may be achieve some health benefits.

What About The Conventional Low-Fat/ High-Carbohydrate Diet?

The answer depends on which carbohydrates you pick. While there is no one diet that works for everyone, a diet full of refined carbohydrates is less healthy. Unless you run marathons and have room in your diet for thousands of extra, empty calories a day, those sugar- and refined-flour-based foods are a double whammy. That's why we previously revered advice to eat low-fat foods for weight loss has come under heavy fire in the last couple of years.

Harvard-based research has suggested that satiety (satisfaction) is a key factor in successful weight loss. Most people experience less satisfaction when eating a low-fat meal, so we tend to overeat on low-fat/high-carbohydrate diets. That makes it really hard to keep the calories (and weight) down. Although it may not seem like it, calories are limited even in the permissive Atkins diet. And because of the high fat content, Atkins meals are often more satisfying with less food.

What Does Research Show?

A recent study found that an Atkins diet improved cholesterol and triglycerides and was better at achieving weight loss at six months than a conventional low-fat diet. The study went on to show, however, that at one year, the benefits of the Atkins diet had dissipated, and the diet was no more effective than a conventional low-fat diet for weight loss. Also, this study did not address some important health risks associated with the diet.

Keep in mind that the healthiest weight-loss goals are for the long term (generally defined as one year or longer). While just about any calorie-restrictive diet can work to quickly get you into a smaller size, long-term weight loss is rarely achieved this way. And there still hasn't been a study demonstrating that low carbohydrate/high protein diets are more effective than a low-calorie diet for long-term weight loss.

Are There Concerns About A Low-Carb Diet?

There are a number of concerns about low-carbohydrate/high-protein diets. They are high in protein (making kidney stress more likely, especially for those prone to kidney problems); very low in carbohydrates (causing ketosis and bad breath); high in saturated fat (leading to increased cholesterol and risk of coronary heart disease); and contain less plant proteins, fiber and fresh fruit (leading to constipation and diminished cancer prevention).

The Bottom Line

Beware of closely following an Atkins-type diet for an extended period of time. At the same time, beware of the amount of refined carbohydrates in a typical low-fat/high carbohydrate diet. They cause people to become unhealthy and overweight.

We come back to the same old trusty recommendations, continually borne out in the research, with some new twists:

1. Eat lots of fruits and vegetables.
2. Whole-grain carbohydrates with a low glycemic index are part of a healthy diet.
3. Eliminating refined carbohydrates, which have a high glycemic index, helps you to lose weight and improve health.
4. Choose moderate servings (3 to 4 ounces) of lean protein, balancing animal and plant sources. Poultry and fish are the leanest animal proteins; while beans, nuts, tofu, meat imitators such as veggie burgers are good sources of plant protein.
5. Include healthy sources of fat for nutrients and satisfaction, such as nuts, nut butters, avocado, olive- and vegetable-oil-based dressings, canola oil and trans-fat-free margarines for baking.
6. Limit manufactured, synthetic food products. These are labeled as low-carbohydrate, and are made with sugar alcohols that are not digested and can cause gas, bloating and diarrhea if eaten in quantity.