

The Weighty Issue of Low-Carb Diets, or Is the Carbohydrate the Enemy?

Jennifer B. Marks, MD, FACP, FACE, CDE, Editor

In case you haven't noticed, low-carb diets have become the rage. Suddenly, the low-carb "lifestyle" (whatever that means) is in. Fat is fine! Eat all the bacon and steak you want, but don't touch that pasta!

Unless, of course, you bought low-carb pasta at one of those new low-carb food stores. Entire stores full of "carb alternatives" and "smart-carb" foods have arisen. And the number of diet books pushing varia-

tions of the low-carb diet is growing yearly. We have seen the enemy, and it is the carbohydrate.

But do people make healthy food choices by focusing solely on cutting carbs? I recently had lunch with a friend who is watching his weight. His order? "Double cheeseburger, hold the bun." It makes no sense. A double cheeseburger is conservatively 1,000 kcal, whereas a single cheeseburger with a bun is perhaps 600.

Over the past three decades, before the low-carb craze, the data are pretty clear that we, as a population, gained weight. During this time, significant dietary changes occurred in both men and women:¹

- The average caloric intake for men rose from 2,450 to 2,618 kcal/day. For women, it rose from 1,502 to 1,877 kcal/day.
- The percentage of calories from carbohydrates also increased by almost

7% in men and 6% in women (a 68- and 62-g increase, respectively).

- The percentage calories from saturated fat decreased from 13 to 11% for both men and women.¹

So, clearly, we were eating more calories, and more calories from carbohydrates. But are carbohydrates really the enemy, or were we eating the wrong carbohydrates? Is it possible that, having been advised to eat more low-fat foods, we ate larger quantities of them and got fatter as a result?

A recent public opinion poll² of 1,017 Americans aged 18 or older showed the reality of how the American public views carbohydrates and how the frenzy over low-carb diets is affecting how we eat.

- Today, 89% of adults are either trying to maintain their current weight or to lose weight. Of those trying to lose, 19% are doing so by reducing carbohydrates.
- People on low-carb diets believe that carbohydrates—not calories—cause weight gain. Forty-three percent say they worry less about the amount of food they can eat. Forty-seven percent believe that people can lose weight by cutting back on carbohydrates without cutting back on calories.
- Of those Americans on low-carb diets, 50% are eating more steak, 30% more bacon, and 21% more ham. Also of concern, 43% are eating less fruit.

The scientific literature is not clear about the effect of low-carb diets. In a recent trial of a low-carb, high-protein, high-fat diet compared with a low-calorie, high-carb, low-fat diet, initial weight loss was greater on the low-carb diet, but by 1 year, there were no differences in weight loss between the two diet groups.³ In the Steno-2 trial⁴ investigating benefits of multifactorial risk reduction interventions in people with type 2 diabetes, the more aggressively treated group had significantly fewer cardiovascular events despite consuming a high-carb, low-fat diet over the 8 years of the study. Of course, the diet was only one of multiple interventions, but in the context of overall risk reduction for cardiovascular disease, it did not appear to have adverse effects. Parenthetically, in that study neither group lost significant weight. A recently published review⁵ of studies on low-carb diets found no advantage to these diets compared with isocaloric diets that contained carbohydrates.

Although the exact roles of dietary fat and carbohydrate as contributors to the current obesity epidemic aren't clear, it is clear that the American diet contains excessive amounts of processed, high-fat, calorie-dense foods, such as those served in fast-food restaurants. It is also clear that our carbohydrate choices have favored the high-sugar, low-fiber varieties that are largely devoid of nutritional value.

There is no clear evidence to support severe restriction of dietary carbohydrate as promoting either long-term health or weight reduction. All carbohydrates are not the same. Choosing fiber-rich carbohydrates, such as fruits, vegetables, and whole grains, as well as foods low in saturated, and preferably high in monounsaturated,^{6,7} fats seems a sane course to follow. Choosing a double cheeseburger without the bun does not.

REFERENCES

- ¹Centers for Disease Control and Prevention: Trends in intake of energy and macronutrients—United States, 1971–2000. *MMWR Morb Mortal Wkly Rep* 53:80–82, 2004
- ²Partnership for Essential Nutrition: Opinion survey executive summary: the impact of the low carb craze on attitudes about eating and weight loss. Available online at www.essentialnutrition.org/survey.php.
- ³Foster GD, Wyatt HR, Hill JO, McGuckin BG, Brill C, Mohammed BS, Szapary PO, Rader DJ, Edman JS, Klein S: A randomized trial of a low-carbohydrate diet for obesity. *N Engl J Med* 348:2082–2090, 2003
- ⁴Gaede P, Vedel P, Larsen N, Jensen GVH, Parving H, Pedersen O: Multifactorial interventions and cardiovascular disease in patients with type 2 diabetes. *N Engl J Med* 348:383–393, 2003
- ⁵Buchholz AC, Schoeller DA: Is a calorie a calorie? *Am J Clin Nutr* 79:899S–906S, 2004
- ⁶Trichopoulou A, Vasilopoulou E: Mediterranean diet and longevity. *Br J Nutr* 84 (Suppl. 2):S205–S209, 2000
- ⁷Hu FB: The Mediterranean diet and mortality: olive oil and beyond *N Engl J Med* 348:2595–2596, 2003