

Jury Still Out on Low-Carbohydrate Diets

Scientific Evidence Lacking on High-Protein, Low-Carb Diets

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April 8, 2003 (New York) - Despite the popularity of high-protein, low-carbohydrate diets such as the Atkins diet, a new study shows there still isn't enough research to prove whether the diets really work at promoting long-term weight loss.

Researchers say there simply isn't enough scientific evidence to make a recommendation for or against these low-carbohydrate diets for people trying to lose weight, and very little is known about their long-term safety.

"Despite all the hype, the published literature suggests that calories are what's important for weight loss," says researcher Dena M. Bravata, MD, MS, of Stanford University.

Bravata presented the findings, which appear in the April 9 issue of *The Journal of the American Medical Association*, at a briefing on obesity today in New York.

More weight-loss news from a special obesity issue of *The Journal of the American Medical Association*.

[Weight-Loss Programs Keep Pounds Off](#)

[Obese Children Suffer Like Cancer Kids](#)

[Watching TV Instead of Your Waistline?](#)

[New Weight-Loss Drugs Pass First Tests](#)

For the study, Bravata and colleagues reviewed 107 studies on high-protein, low-carbohydrate diets published between Jan. 1, 1966 and Feb. 15, 2003. They compared how the 94 different diets described affected the more than 3,200 participants in terms of weight loss as well as health factors, such as cholesterol levels, blood sugar and insulin levels (indicators of diabetes risk), and blood pressure.

Advocates of low-carbohydrate diets, such as best-selling author and cardiologist Robert Atkins, MD, say they produce rapid weight loss by stimulating the body to burn fat rather than dietary carbohydrates without any significant long-term problems.

But many health organizations, including the American Dietetic Association and the American Heart Association, have cautioned against low-carbohydrate diets. They say there are concerns the diets lead to abnormal metabolic functioning in the body that could have serious medical consequences, particularly among people with heart disease or heart-disease risk factors such as type 2 diabetes, high cholesterol, or high blood pressure.

After reviewing the studies performed on the low-carbohydrate diets to date, researchers found at least three major gaps in the research:

- No study has evaluated a diet containing 60 grams or less of carbohydrates (a common level recommended by many of the lower-carbohydrate diets) among people over an average age of 53.

- Only five of the studies evaluated low-carbohydrate diets for more than 90 days, and none of those studies were randomized or had comparison groups to ensure scientific validity.
- Some of the most popular lowest-carbohydrate diets that recommend less than 20 grams per day of carbohydrates have been studied in only 71 people.

Bravata says those findings show that much more research is needed to evaluate the long-term safety of lower-carbohydrate and very low-carbohydrate diets as well as their effect on older people who may have other health issues aside from obesity.

Researchers found that among obese people who participated in the studies, successful weight loss was linked to limiting calorie intake and longer diet duration, but not with limiting the amount of carbohydrates they ate.

But Bravata says they found no evidence that these high-protein, low-carbohydrate diets were unsafe over the short term. The studies showed the diets had no significant effect on cholesterol, blood sugar and insulin, and blood pressure levels.

And Bravata says they were also not able to evaluate the role exercise or ethnicity may have played in the success or failure of the low-carb diets in promoting weight loss.

In an editorial, George A. Bray, MD, of Louisiana State University in Baton Rouge, says this study shows once again that "a calorie is a calorie," and low-carbohydrate diets induce weight loss by reducing calorie intake.

The first low-carbohydrate diet was introduced by William Banting in 1863. Since then, Bray says, the diets have become a persistent theme and "cash cow" for authors and publishers of diet books for the last 140 years because they produce quick weight loss, "something prized by dieters and diet promoters alike."

But the quick weight loss induced by low-carbohydrate diets is largely due to excessive urination. After seven to 14 days of this, Bray says the rapid phase of weight loss slows.

Bray says the more important point is that, "Diets do not cure obesity. If they did, Banting's diet would have eliminated overweight and obesity and made the need for new diet revolutions unnecessary."

He says the question of whether a unique diet exists that will produce lasting weight loss has yet to be evaluated, and long-term studies to examine this are needed to address this issue.

"Given the increasing prevalence of obesity, studies such as these deserve the highest priority," Bray concludes.

SOURCES: *The Journal of the American Medical Association*, April 9, 2003. Dena M. Bravata, MD, MS, Stanford University School of Medicine, Stanford, Calif.