Dynamic Chiropractic

NUTRITION / DETOXIFICATION

Calories Count in Weight Loss

THE DIET COMPOSITION COMPARISON STUDY

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When I saw the headlines and heard the news reports about a new study that concluded diet doesn't matter as long as the calories are low, I had mixed thoughts. I was pleased that it was published in an actual journal, wondered if it were as definitive as it sounded, and reflected on how I learned calories were the key as a teenager. I was overweight and lost pounds by eating less and moving more. Since I've always been in the "calorie camp," I was curious if this study would hold up with the people who make money by contending the problem lies with a calorie source, rather than the calorie itself. Before we answer that question, here is what we do know:

- When researchers can precisely control energy intake and output in the laboratory, weight loss parallels energy deficit, rather than the energy source.
- In the real world of "free feeding," very few people measure, monitor and accurately track what they eat.
- In the real world, most people with excess weight tend to underestimate activity.
- Whenever people pay attention to energy intake and output (a common occurrence with a new diet), weight loss happens.
- Diets stop working because once the weight begins to come off, the dieter's attention to detail wanes.
- There are many ways for the masses to lose weight, but only a few for the individual.
- If calories are not counted, the importance of their source rises because different sources and different ratios satiate each person differently.
- A high percentage of people who don't regain weight don't stop monitoring their food choices and physical output. A low percentage of these people keep the weight off by restricting a single macronutrient.

The Study

Eight hundred and eleven volunteers were divided into four dietary groups (see table) and followed for two years. Intervention consisted of 18 group meetings in the first six months and 36 meetings in the next 18 months, along with 12 individual meetings over 24 months. There were also questionnaires and diet diaries. Each participant was given a target calorie breakdown (percentage of daily calories to be consumed from carbohydrates, protein and fat) based on their group designation.

Study Group	Target Calorie Breakdown(%) (Carb-Protein-Fat)	Actual Calorie Breakdown (%) (Carb-Protein-Fat)

Low fat, highcarb	65-15-20	57-17-26
Low fat, highprotein	55-25-20	53-21-26
High fat,moderate protein	45-15-40	49-18-34
High fat, highprotein, low carb	35-25-40	43-34-23

The study stated that "each participant's caloric prescription represented a deficit of 750 kcal per day from baseline, as calculated from the person's resting energy expenditure and activity level. The greatest weight loss occurred in the first six months in all groups. All groups lost between 12 and 13 pounds. At two years, subjects who completed the study still weighed 7 to 9 pounds less. The researchers concluded, "Reduced-calorie diets result in clinically meaningful weight loss regardless of which macronutrients they emphasize."[1]

For many years, I have agreed with this statement. Those who don't will point out the obvious problems with this study: As the table reveals, not one of the four groups met the macronutrient target despite extensive intervention. For example, the high-carb group (65-15-20 target) actually consumed 57 percent daily carbs, while the low-carb group (35-25-40 target) consumed 43 percent carbs. Low-carb advocates will say the low-carb group didn't have an actual low-carb diet, while high-carb supporters will say the high-carb group didn't have a high-carb diet. This means that even though the study authors feel the issue is resolved, the paper will do little to change the minds of those who believe calories are secondary to a macronutrient imbalance when it comes to weight loss.

Reference

1. Sacks FM, Bray GA, Carey VJ, et al. Comparison of weight-loss diets with different compositions of fat, protein and carbohydrates. *N Engl J Med*, 2009;360:859-73.

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