Diabetes may be described as a disease of glucose intolerance: high blood glucose is both the characteristic indicator and the cause of complications.

The loss of control of glucose metabolism is what makes a low carbohydrate diet a good therapeutic approach, and it's why I'm astonished that experts encourage people with diabetes to eat carbohydrates and then "cover" them with insulin [1].

I am also surprised to hear negative reactions to carbohydrate restriction from people who have actually seen the dramatic effects of this approach in their own lives. I wrote an article for wireandspek.com, a medical education website, called "Why You Don't Want to Go Low Carb or Vegan," which is a personal rebuttal to Hope Warshaw's recent article, "Why You Don't Want to Go Low Carb or Vegan," and why I don’t need to ask you to trust me on this.

Ms. Warshaw’s argument is that "avoiding carbohydrate, as some low carb diets suggest, does not entirely return blood glucose to normal." It is true that your brain needs glucose, but glucose can be supplied by the process of gluconeogenesis; that is, glucose can be synthesized from other molecules. It is true that most of your brain glucose comes from dietary carbohydrate, but in the fasting state, the liver can provide about thirty and seventy percent of your blood glucose comes from gluconeogenesis. There is no requirement for dietary glucose.

At the 2004 Brooklyn conference on the Nutritional and Metabolic Effects of Low Carbohydrate Diets, William Yancy, Jr., said that low carbohydrate diets "may be well tolerated in many people and in some cases may be therapeutically beneficial, but there is little evidence that low carbohydrate diets are useful in the management of diabetes.

Of course, if you are taking medication, you should reduce carbohydrates only with medical supervision. In most diseases, reducing the amount of medication the patient, sometimes blood glucose does return to normal. In any case, ingesting carbohydrate raises blood glucose.

Ms. Warshaw goes on to say, "Second, an adequate amount of carbohydrate is an important component of a healthy eating plan. Second, an adequate amount of carbohydrate is an important component of a healthy eating plan.

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Figure 1A. Macronutrient consumption during the diabetes epidemic. Data from National Health and Nutrition Examination Surveys.

Figure 1B. Incidence of diabetes by year. Data from National Center for Health Statistics.

The second thing we teach medical students is that almost all the increased caloric intake during the ongoing epidemic of obesity has come from increased consumption of carbohydrates. (Of course, almost everything increased except red meat and eggs.)

So what is Ms Warshaw's complaint? Well, she points out that "studies that compare low carb diets to conventional diets ... show that cereals and grains are among the major ones. (Of course, almost everything increased except red meat and eggs.)"

Something's wrong here. Because low carb diets do the same as traditional diets after one year, then you don't want to be eating like this. Triglycerides and HDL (healthy cholesterol) were much better on the low carb diet than the low fat diet (Figure 2).
Figure 2. Results at 6 months and 1 year for a multicenter study in which obese men and women were assigned at random to a low-carbohydrate diet or a conventional low-fat diet. Data from reference [3].

Reference [3] is important for showing the general health benefits of low carb diets even when a difference is not statistically significant. I don't know of any study on any other diet that shows such good effects on controlling glucose and insulin without a difference.
Ms. Warshaw’s complaint is that these studies “show that many study subjects drop out of the study and are unable to...compliance rather than to dissuade people from a strategy that actually works for the many people who follow it?

You might want to think twice before you let Ms Warshaw tell you what you don’t want to do. “You’ll have type 2 diabetes...for example, D-solutions (http://www.dsolve.com/) and Dr. Richard Bernstein’s forum (http://www.diabetes-book.com/).

I am most concerned that if Ms. Warshaw really had something positive to offer, she wouldn’t need to dissuade people from making their personal choice. Candy followed by insulin is not good enough.


5. JS Volek, RD Feinman: Carbohydrate restriction improves the features of Metabolic Syndrome.