



Debate rages in diet world

Now and then, news articles appear that challenge current thinking on health issues and trigger debate across the country. This type of article appeared in the July 7 issue of the Sunday New York Times and has the nation's dieters, physicians, dietitians and nutritionists all abuzz.

The long article -- "What if it has all been a big fat lie?" -- by Gary Taubes, presents a seemingly compelling case that high-carbohydrate diets are the major cause of obesity, diabetes and heart disease in the United States. He proposes that Dr. Robert Atkins, of low-carbohydrate/high-protein/high-fat diet fame, has been right all along.

Although this type of article causes confusion and frustration among the public, it helps to prevent complacent and dogmatic thinking about diet and health.

Question: What do we think about the high-protein vs. high-carbohydrate controversy?

Answer: Plenty! In fact, our first three columns in the year 2000 discussed what we considered a sane diet and the potential problems with both high-protein and high-carbohydrate

diets. These articles are still available on the Star-Bulletin Web

site, www.starbulletin.com. There are rational arguments against both extremes in diet. It is not an "either/or" type of question.

Q: Don't the low-carbohydrate/high-protein diets cause rapid weight loss?

A: Yes, they do.

Q: Isn't that a good thing?

A: No. Fat loss should be the goal -- not simply weight loss. Fat cannot be lost quickly. It contains too many calories. Rapid weight loss on low-carb diets is primarily due to breakdown and loss of the body's glycogen (carbohydrate) and protein (mostly muscle).

Upon breakdown, glycogen and protein release large amounts of water, which shows up as rapid weight loss. Scale watchers see this as success.

Q: How can muscle protein be lost when the diet is high in protein?

A: Various tissues in the body require carbohydrates in the form of glucose for normal function. When inadequate carbohydrates are consumed, the body is forced to convert amino acids from protein into glucose.

It is difficult and unhealthy to eat enough protein to generate adequate glucose to meet body needs.

Q: What are the main functions of carbohydrates?

A: Carbohydrates are the major energy source for moderate-to high-intensity exercise. Without the carbs, you won't feel like exercising much and you won't last very long.

Carbohydrates also are the main fuel source for the brain. Without adequate glucose, most people don't think very clearly. Glucose is the only energy source used by red blood cells. Without it, they can't function.

Q: What's the bottom line?

A: Don't try to defeat the laws of physics. Healthy fat loss is a gradual process. Loss of a pound of fat tissue requires eating about 3,500 calories less than you need. Loss of a pound of glycogen or muscle can result from a calorie deficit of only 400 to 500 calories.

In addition to weight-loss issues, many health concerns are related to high-protein diets. We will address concerns associated with high-protein and high-carbohydrate diets next week.

Alan Titchenal, Ph.D, CNS and Joannie Dobbs, Ph.D, CNS
are nutritionists in the Department of Human Nutrition, Food and Animal Sciences,
College of Tropical Agriculture and Human Resources, UH-Manoa.
Dr. Dobbs also works with the University Health Service.
