## Leyla Weighs In: To carb load, or not to carb load? That is the question

Last week, I wrote that exercise alone does not promote weight loss. The same study cited in that article also examines the question of carb loading for exercise.

The reason for carb loading is that the body only has a limited capacity to store carbs as glycogen. We rely on glycogen to fuel intense exercise as well as quick-acting carbs during endurance exercise events.



However, research reveals that adaptation to a low carb, high fat diet induces high rates of fat oxidation (fat burning) sufficient for *most* forms of exercise without additional carbs. Therefore fat, including the byproducts of fat burning (lipolysis) called ketones are in abundance without any need for replacement during exercise—again, for *most* forms of exercise.

Those who would benefit from lipolysis/ketosis are those who frequent the gym for fitness. But because many usually carb load before exercise, they can become insulin resistant. The fitness buff may be toned or even quite muscular, but at the same time, they look a little "thick." These insulin resistant athletes/exercisers may be at risk of developing type 2 diabetes should they continue carb loading this way over many years. These exercisers don't need to carb load nearly as much as they think they should.

Now, many endurance athletes such as marathon runners and triathletes would argue that carb loading is absolutely necessary, and it may well be for those particular sports.

One example that comes to mind is a female triathlete in her early 40's (after having three children!) who told me her blood sugar is always "borderline." If she were to stop exercising or even slow it down, it is likely she could cross that threshold into type 2 diabetes if she continued carb loading.

On the other hand, I knew a female NYC marathoner who relied on being in lipolysis/ketosis for all her races—and she did very well.

So there needs to be a better balance of macronutrients for such events, but taking into consideration each person's unique biochemistry and health issues. If a person is prone to insulin resistance, much less carb-loading would be appropriate.

To your health!