

Your Health

by Dr. Paul Roumeliotis

Low Carb Diets

“Low carb” diets seem to be the new trend in dieting. We are constantly seeing the term “low carb” as our society is in a crisis situation when it comes to being overweight, and that includes children and adolescents. Although the “low carb/high protein diet” approach is in vogue, there are not many scientific studies that have confirmed their safety or effectiveness. The studies that have been performed are based on adults. However, it is quite logical to assume that a lot of our current understanding can also apply to children.

The term “carbs” is short for carbohydrates which are the “sugars” found in our meals. When one eats sugar, it is absorbed into the blood stream. Once sugar is in the blood stream, “insulin” is produced so that our cells can use it. Excess sugar that we do not need is stored as fat. Insulin has a few effects that may contribute to being overweight including:

- hunger/cravings
- production of cholesterol
- production/storage of fat

Theoretically, it makes sense that higher insulin levels will cause more hunger and produce fat and cholesterol. Studies have indeed confirmed that blood cholesterol can be reduced by decreasing carbohydrate intake only. This is where the type of sugar consumed is important. There are “simple sugars” and “complex sugars”. The simpler the sugar is, the more rapidly it gets into the bloodstream and the quicker and higher is the rise in the insulin. How quickly a certain food causes the blood sugar (and the insulin) to rise is called the “Glycemic Index” or GI. Pure sugar (glucose) is considered to have the highest GI at 100. Eating a lot of “high-GI-carb containing foods” will cause higher levels of insulin, resulting ultimately in weight gain. Foods that have a high GI include: white flour, bread, table sugar, white potatoes, white rice and white pasta. These high GI foods can easily be found in high amounts at any “fast food” outlet.

On the other hand, if one eats a high protein meal, another hormone called glucagon is made. Glucagon actually causes the body to break down fat. So when we say “low carb”, we mean lower total carbohydrate intake with a focus on eating low to moderate GI foods (the more complex sugars) including stone ground or cracked flour, pumpernickel bread, whole wheat pasta and a variety of fruits, vegetables and meats. A word of caution: even the so called “low fat” foods may be unhealthy because they contain a lot of “high Glycemic Index” carbohydrates. Also, even with a low carb approach, we should definitely not ignore the daily fat intake.

It makes sense to avoid the high GI foods. It is a good life-long habit. However these other habits also need to be learned at an early age:

- eating 3 full meals plus 2 to 3 snacks daily
- watching/limiting serving sizes
- drinking lots of water
- getting 30 to 45 minutes of physical activity daily

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