

THE LOW CARBOHYDRATE DIET and WEIGHT CONTROL

Being overweight is a worldwide problem affecting half the population in western and developing countries. Social dietary changes incompatible with our digestive system are a major contributor to this problem. Our ancestors evolved over hundreds of thousands of years living on meat, vegetables, tubers, and nuts found in forests. This is why we have flesh rendering teeth rather than large molars of herbivores. However, only several thousand years ago, our nomadic ancestors discovered seeds and developed agricultural societies based on them. The content of seeds is primarily oil and a carbohydrate called starch.

Starch is a macromolecule comprised of millions of sugars held tightly together. A cup of flour is almost 100% sugar held in these macromolecules of starch. It is tasteless and hard to digest in this form. However, when flour is mixed with water and heated, it becomes foods such as bread, rolls, cereals, noodles, pasta, crackers and desserts. Meals comprised of starches are digested much more quickly than the high protein meals of our prehistoric ancestors. This fact is key to understanding the cause of obesity and how to lose pounds and maintain an ideal weight.

Maintaining a sense of fullness (satiety) and avoiding hypoglycemia (low blood sugar) allows you to keep control of your food intake and weight. Just a small carbohydrate meal, such as cereal or toast, is rapidly digested in the stomach and small intestines, causing a sudden and relatively large spike in blood sugar compared to a protein meal with the same caloric content.

Insulin is a hormone made in the pancreas and released into the blood stream to facilitate transport of sugar into cells. Our pancreas evolved over hundreds of thousands of years to release varying amounts of insulin as a function of blood sugar levels. This insulin release is based on a diet of mostly proteins from meat, as well as tubers, vegetables, and nuts, unlike our high carbohydrate starch based diets today.

After eating a small carbohydrate meal, the blood sugar rises quickly. The pancreas interprets this high blood sugar as the product of a large protein meal and releases too much insulin. As insulin transports sugar from the bloodstream into cells, the blood sugar drops. When blood sugar drops below a certain level, you desire food. If your blood sugar drops even further, you become hypoglycemic, experiencing a strong desire to eat and may feel ill. It is hard to avoid food or snacks and stick to a diet when your blood sugar is low. There are an abundance of fast food establishments selling foods rich in sugar and starch that when consumed will cause blood sugar to rise. This causes a corresponding excessive rise in insulin, followed by a drop in blood sugar, and another round of hypoglycemia-driven snacking and overeating. Excessive, unhealthy eating contributes to poor weight control, often leading to resignation, depression, and self-loathing.

To control or lose weight, eat a balanced diet of low fat-meat, fish, fresh fruits and vegetables, and small portions of nuts. Avoid carbohydrates including breads, rolls, noodles, pasta, rice, potatoes, beans, and bananas. Avoid eating processed foods from packages, boxes, or cans. After reaching your target weight, you may add some starch, especially carbohydrates ranking lower on the glycemic index, such as beans, sweet potatoes, or brown rice. The glycemic index is a value assigned to foods based on how slowly or quickly the foods raise blood glucose levels. To achieve and maintain your optimal weight, eat healthy foods to avoid carbohydrate induced low blood sugar that contributes to unwanted snacking or overeating.

Eat healthy, be healthy, and live longer!

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