

## Sugar Blues

The first sugar refinery in the United States was built in 1689. Its product was very popular: Colonists soon began to sweeten their breakfast porridge with refined sugar and within ten years individual consumption was four pounds a year. Current estimates show that we each consume over 43 pounds a year per person on average! Sugar qualifies as an addictive substance for two reasons, 1) Eating even a small amount creates a desire for more; 2) suddenly quitting it causes withdrawal symptoms such as headaches, mood swings, cravings and fatigue.

Sugar, a simple carbohydrate, describes things with varying degrees of sweetness. Best known is white table sugar, or sucrose. This is the refined sugar of the cane or beet plant. Starch, another form of carbohydrate, is a chain of glucose molecules, and is known as a complex carbohydrate. Both sugars and starches are found in natural foods such as grains, beans, vegetables and fruit. When unprocessed, they are linked together with vitamins, minerals, enzymes and proteins. When, for example, brown rice or other whole cereal grain is cooked, thoroughly chewed and digested, the natural carbohydrates break down uniformly into the separate glucose molecules. These enter the bloodstream where they are burned smoothly and evenly.

But table sugar requires extra effort because it lacks vitamins, minerals and fiber, so our body depletes its own store of minerals and enzymes to absorb it properly. For this reason, sugar is described as empty calories. Instead of providing the body with nutrition, the result is a deficiency. Raw, brown or turbinado sugar, at 96% sucrose is hardly better than white sugar, which is 99.9% sucrose. In the last few years, we are inundated with products made with organic evaporated cane juice, sucanat, florida crystals, fructose, all a refinement in the art of seducing "health conscious" consumers to maintain their habit.

Today we find sugar not only where we've come to expect it - in children's cereals, cakes, cookies and desserts - but also in such foods as canned vegetables, baby food, bread and tomato sauce. In some cases it is called corn syrup, dextrose, maltose, glucose or fructose.

Like heroin, cocaine and caffeine, sugar is an addictive, destructive drug, yet we consume it daily in everything from cigarettes to bread. William Duffy, author of Sugar Blues.

We all know our blood sugar level goes up, then down after a sugar high, but many don't realize the emotional roller coaster ride that accompanies that sweet seductive flavor. We feel happy and energetic for a while and then unexplainably, we are arguing with our friend or lover. Manic depression is the extreme example. Refined sweets and the sad state of the average American diet also leads to diabetes and hypoglycemia. Diabetes is when our body does not release insulin to reduce sugar levels in our blood. Hypoglycemia is the opposite, where our blood sugar gets too low and the pancreas cannot release anti-insulin to raise our blood sugar to the proper



level. Today half of us are hypoglycemic. We crave sweets uncontrollably. We experience unexplained mood swings, anger, tiredness and major binges. If you're kicking the habit, you're in for a challenge. The white stuff is sneaky, seductive and wants to keep you hooked.

*Written by Joshua Rosenthal, Institute for Integrative Nutrition, 2005.*

