

# WATCHING SUGAR IN YOUR DIET IS NOT ALWAYS EASY

Sweet memories. They spring to mind every time I walk down Stanley St.

Actually, it's one specific sweet memory. Hungarian Dobos torte! Back in the 1950s and '60s, Stanley was speckled with Hungarian restaurants. The Tokay, The Carmen, The Pam Pam, the Mocca and The Riviera all had great food and outstanding desserts.

My favourite was the Dobos, a chocolate buttercream-filled multilayer cake named after its inventor, confectioner Jozsef Dobos.

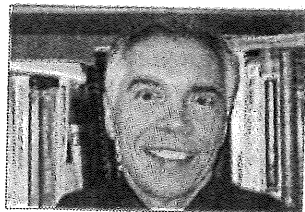
Introduced in 1885 at the National General Exhibition of Budapest, it featured a glazed, hard caramel topping that kept the cake from drying out.

My usual technique was to save the candied topping till the end, and then let my taste buds frolic in the dissolving sugar. No thoughts back then of triglycerides, insulin resistance, hypertension or fructose metabolism. Life was sweet.

How things have changed. Eating has become a clinical experience with meal times peppered with musings about calories, vitamins, antioxidants, cholesterol, fats and sugar. Not that there's anything wrong with that.

After all, we are what we eat, and there is no question that our diet affects our health. Much too often, though, those musings about what we should or should not eat don't translate into any real action. And action is needed. North Americans are becoming heavier and heavier.

"To lose weight, you have to burn more calories than you consume." That oft-stated mantra of weight con-



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But there is a further issue. Since the 1970s, much of the added sugar in the diet has come from high fructose corn syrup, which is composed of at least 55 per cent fructose and 45 per cent glucose. That's not dramatically different from sucrose, but still significant.

The bottom line is that in the last 30 or so years, we have gone from consuming about 30 grams of fructose per day to 60 grams. And therein lies a problem.

Our body does not handle glucose and fructose the same way, even though their caloric content is identical.

Fructose is much more readily converted into fat, some of which ends up in the bloodstream in the form of triglycerides, which, in turn, increase the risk of heart disease. Fructose also forms "advanced glycosylation end products" that promote atherosclerosis much more readily than glucose.

Furthermore, after fructose is consumed, there is a rise in uric acid in the bloodstream, which temporarily blocks the action of insulin,

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trol stems from the laws of thermodynamics, which will never be rescinded. But the statement does require some qualification. Foods may have the same calorie content, but that doesn't mean they affect body weight the same way.

About 40 years ago, it became apparent that the average North American was packing on pounds at an alarming rate. The scientific community responded with a message, which at the time certainly seemed reasonable: cut down on fat intake! After all, a gram of fat was known to supply nine calories, while a gram of carbohydrate or protein supplied only four. So low-fat diets blossomed and "fat-free" products flooded the marketplace. Before long, average fat consumption declined from 40 per cent of total calories to 30 per cent. And what was the effect on the obesity epidemic? It picked up steam! Cutting back on fat intake was obviously not the answer.

The problem was that the decrease in fat intake was paralleled by an increase in carbohydrate consumption.

Carbohydrates, often just plain sugar, replaced fat in many of the "fat-free" foods, and people began to satisfy their calorie cravings by gulping more and more "liquid" calories in the form of juices and soft drinks.

And more and more of these calories were coming from one specific sugar, namely fructose.

Of course, fructose has always been a part of our diet, given that ordinary sugar, sucrose, is composed of a molecule of glucose joined to one of fructose.

During digestion, an enzyme, sucrase, breaks sucrose down to glucose and fructose, which are then absorbed into the bloodstream. But sugar as a natural component of food is not a problem – it is the added sugar that is a concern.

An increase in sugar intake automatically means an increase in fructose intake.

so that instead of being used for energy, carbohydrates get converted to fat. And a further glitch is that fructose, unlike glucose, does not suppress the secretion of the "hunger hormone" ghrelin from the stomach, so people end up eating more. As if that weren't enough of a concern, continued high intake of fructose creates resistance to leptin, the hormone excreted by fat cells that sends a signal to the brain saying that enough has been eaten, it's time to stop. With too much fructose, there's no stopping.

All right then, what can we do? Curbing total added sugar intake automatically curbs fructose intake. And how much do we need to curb? Well, an average woman should not eat more than about 30 grams (seven teaspoons) of added sugar a day, a man no more than 40.

For some perspective, a 355-millilitre can of soft drink contains 40 grams of sugar, a doughnut up to 20, and a serving of sweetened cereal about 10. Fruits also contain sugar, an apple has about 20 grams (12 of which are fructose), but the fibre in the apple modulates the absorption. Fruits are not to be counted as "added sugar" because the sugar is a naturally occurring component. If you're not diabetic, eat as much as you like.

Unfortunately, the sugar in a slice of Dobos counts as added sugar, all 35 grams of it. I still go for it as an occasional treat because there is more to life than worrying about every morsel of food we put in our mouth.

Sadly, all of the original Hungarian restaurants on Stanley are gone, but you can still get a slice of spectacular Dobos at Café Rococco on Lincoln St. See you there.

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*Gazette Feb 14, 2010*