

# NUTRI-SPEC



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## THE NUTRI-SPEC LETTER

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From:  
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Dear Doctor,

### **SUGAR BABIES ---**

#### **YOUR PRACTICE IS FULL OF THEM!**

What is a Sugar Baby? Your Nutri-Spec definition: anyone who day-after-day without fail consumes 300 total calories of fructose or sucrose, or, who slurps down 50 calories of liquid sugar. --- Just how much is 300 calories of Sugar Baby pacifier? → The sugar in 3 medium sized apples. And, 50 calories of fluid suckling? → The sugar in 3 swallows of fresh squeezed orange juice.

That is all the sugar intake required to provoke a hyper-pancreatic insulin reaction. Yes, it may be disconcerting (especially if you are a Sugar Baby yourself), but that seemingly small daily intake of fructose/sucrose pushes a person down the long, arduous path leading to insulin reactor, then dysinsulinism, then insulin resistance, then early metabolic syndrome ( --- a tubby tummy and tell-tale triglycerides), then moderate insulin resistance ( --- early diabetes, non-alcoholic fatty liver disease, and hypertension), then advanced metabolic syndrome ( --- diabetes and/or cardiovascular disease) --- then, living miserably ever after ( --- with the ever after ending prematurely). --- Other features that may be discovered along the path to metabolic syndrome include fatigue, anxiety/depression, high cholesterol, obesity, plus the many variations of free radical oxidative damage resulting from Advanced Glycation End Products.

**--- PRETTY PICTURE?**

You may be thinking “Come on, Schenker, you’ve told us of studies estimating the sugar intake of the average American is up to 160 pounds per year. And now you’re saying that just the sugar in a few pieces of fruit or swigs of orange juice will lead a person down the same path of self-destruction traveled by the sugar hogs?” ----- Yes, I am telling you 2 things: First, it really takes very little fructose/sucrose to whip a human pancreas into hysteria. Second, even health conscious people consume far more sugar than they think they do.

On the first point --- in the zillion years of human existence on planet earth, the human pancreas never encountered until the past 70 years either the intensity of sugar stress, or the duration of sugar stress that a punished pancreas suffers from today. With the possible exception of dates in the Middle East, there were no natural sources of sugar the equivalent of eating a candy bar (or an orange). Not only were fruits in nature (before they were hybridized into the Sugar Baby temptations sold in modern super markets) quite low in sugar, but those low-sugar fruits would have been ripe only for a very short season. Zillions of human beings over zillions of years rarely encountered sugar, and never in great concentrations. --- So, your typical patient has an unprepared pancreas that is in an almost perpetual state of shock.

What would happen if you asked your patients “How do you do on your sugar intake --- are you a Sugar Baby?” Most of the patients who are under your care for Nutri-Spec metabolic therapy would self-righteously claim to be extremely conscientious about minimizing sugar intake. But that brings us to the second point mentioned above --- these people are getting far more sugar than they believe they do. Ask your patients if they are Sugar Babies, then, whatever the reply, you might want to say, “So, you would not sit down and eat 8 spoonfuls out of the sugar bowl?”

“Of course not!”

“This is where most people have been led astray by the conventional definition of what constitutes a healthy diet. --- Did you know that the glass of orange juice that you drink for breakfast every morning contains 8 teaspoons of sugar?”

“No, I didn’t --- but at least it’s natural sugar, so it shouldn’t be so bad.”

Of course at that point you do your best to explain (to someone who really does not want to believe) that the fructose and sucrose in orange juice is exactly the same as the fructose and sucrose in the sugar bowl

--- and --- that no such concentrated sugar has ever existed in nature. When patients insist that their belief system is valid, and that fruit is all “natural”, tell them, “You are welcome to eat all the fruit you can find growing in the fields, forests, and prairies within 50 miles of their home.”

But handle your patients delicately. Our intent is not to antagonize and alienate them, but rather to educate them gently. ----- To that end, from May 2013 through January 2014 we gave you a 9 month series of these Letters on the topic of insulin resistance, metabolic syndrome, and glycemic control. In those Letters, we settled once and for all the question long contemplated by Nutri-Spec practitioners --- Which is the greater cause of morbidity, sugar or HOHUM PUFAs? By sheer quantity alone, it is sugar. We made several references to what we call “the Aisle of Death” in supermarkets --- the aisle where hundreds of gallons of pancreas-pounding sugar slurp is on display. Come back to your supermarket days later and every item in that aisle will have been sold and replaced, as the river of morbidity keeps flowing down the throats of self-destructive sugar hogs.

But as we look over those 9 Letters on glycemic control, we notice that something is missing. A major emphasis was made in those Letters on the influence of Sympathetic/Parasympathetic Imbalances on the loss of glycemic control. But there is another Nutri-Spec Fundamental Imbalance even more directly connected to dysregulation of blood and brain sugar levels. So, we need to take a closer look at ...

### **GLUGOGENIC/KETOGENIC IMBALANCES ...**

and how they are both caused by and causes of high and low blood and brain sugar.

Not only is Glucogenic/Ketogenic Balance more directly related to glycemic control, but that is virtually all that it relates to. You see, Glucogenic/Ketogenic Balance is all about energetics. It is all about maximizing the efficiency of energy production by, on a moment to moment basis, choosing the ideal energy substrate --- either glucose and glucogenic amino acids, or fats and ketogenic amino acids.

Your Glucogenic patients are not efficient at burning fats for energy. They are very efficient at storing dietary fat in adipose tissue, but very inefficient at pulling it out of storage. Thus, their energetics is crippled --- relying almost entirely on glucose availability for energy expenditure.

In contrast, your Ketogenic patients do not efficiently use glucose as an energy substrate. Dietary glucose is very efficiently stored away as fat, but very inefficiently pulled out of storage to be catabolized for

energy. ----- Both your Glucogenic and Ketogenic patients literally “need more energy” --- not just in a sense of the symptomatic complaint you incessantly hear from these whiney patients, but literally need energy, in a physiological sense. Each of the 2 Imbalances has limited energy substrate available for efficient use --- and is perfectly analogous to the old expression “Your engine isn’t firing on all cylinders”.

Here is a table summarizing the ramifications of the Metabolic Imbalances you see in your Glucogenic and Ketogenic patients.

### GLUCOGENIC

Insulin Reactor

Reactive Hypoglycemia →

→ Insulin Resistance →

→ Metabolic Syndrome

Absorptive State

Fat use for energy deficient

Respiratory Quotient High

Systemically Acid

Cholesterol High

Hip/Waist Ratio High

Catecholamines High

(woman) Progesterone Low

### KETOGENIC

Insulin Reactor

Insidious Hyperglycemia →

→ Insulin Resistance →

→ Metabolic Syndrome

Post-Absorptive State

Sugar use for energy deficient

Respiratory Quotient Low

Systemically Alkaline

Triglycerides High

Waist/Hip Ratio High

Cortisol & Glucagon High

(men) Testosterone Low

Now --- here is something we have never discussed regarding Glucogenic/Ketogenic Imbalances --- a clinical pearl you will find immediately relevant to helping your patients. --- There is a direct association between Glucogenic and Ketogenic Imbalances and Thyroid Insufficiency. We can tie in this Gluco/Keto-thyroid link to our discussion in the last few Letters ...

We have discussed ...

**UNRELENTING STRESSORS ...**

The causes of the causes of your patient's symptomatic complaints --- the causes of the causes of your Nutri-Spec Metabolic Imbalances, and the causes of the causes of deflation of your patient's Diphasic Metabolic Cycle.

You have learned that the human body's primary defense against unrelenting stressors is an attempt to conserve energy by shutting down thyroid activity. This does not mean shutting down the thyroid gland, but rather shutting down the activity of deiodinase enzymes, and shutting down the function of thyroid hormone transport proteins. So, even though the patient's thyroid gland is perfectly functional and perfectly tuned into the pituitary, the patient is suffering potentially extreme thyroid insufficiency. Once a patient sinks into a deep state of thyroid insufficiency in response to an unrelenting stressor, it can become difficult or even impossible to pull out of that deep rut, even if the unrelenting stressor is removed.

So, here is what you need to add to your understanding of Gluco/Keto balance and thyroid insufficiency. --- We have here a patho-physiological aberration that can hit your patients from both directions. When your patient is overwhelmed by an unrelenting stressor such that thyroid function drops, one of the first links in the metabolic chain that will break is the ability to maintain Glucogenic/Ketogenic Balance. Those who have even a slight tendency to slip Glucogenic, will lose their ability to metabolize fats; those who have even the slightest genetic or acquired tendency to slip Ketogenic will fall deeply into a Ketogenic Imbalance and be unable to metabolize glucose.

And --- the patho-physiology can flow the opposite direction. When a patient is chronically stuck in either a Glucogenic or Ketogenic Imbalance, that becomes an unrelenting stressor. Week after week, month after month, and perhaps year after year, the patient cannot maintain glycemic control, and cannot access half the energy substrates the body needs to maintain powerful energetics. An unrelenting stressor? You bet. And, what happens in response to unrelenting stressors?

### **THYROID FUNCTION IS SHUT DOWN AS A MEANS OF DEFENSE.**

The body deliberately goes into a hypometabolic state as a conservation measure.

Summary: When you see a Glucogenic or a Ketogenic Imbalance, think thyroid. Some unrelenting stressor might have shut down this patient's thyroid function, and thus precipitated the Glucogenic or Ketogenic Imbalance you are seeing. --- Or --- the patient may be a

Sugar Baby stuck in a state of Glucogenic or Ketogenic Imbalance, and the resulting unrelenting stressor is suppressing thyroid function.

How does your new understanding affect your patient care? You probably have a zillion patients with a long list of what appear to be thyroid-related symptoms, yet whose thyroid blood labs are perfectly normal. If these patients test Gluco or Keto, fixing the imbalance you find will dramatically improve what appears to be thyroid-related pathophysiology. The corollary to this concept is that if you have a Glucogenic or Ketogenic patient whose Imbalance just simply will not clear (despite reasonably good dietary compliance), you are almost certainly looking at a patient who needs at least temporary support of thyroid function with one of the whole thyroid preparations such as Armour Thyroid, Nature-Throid, or NP Thyroid.

One nice aspect of Glucogenic and Ketogenic Imbalances is that if they are not accompanied by significant thyroid insufficiency, these are generally the easiest Imbalances to clear out. Furthermore, these are the easiest Imbalances to discover, since the objective testing is so simple ...

--- Any time you have a patient who consistently shows a low hydration index accompanied by either a high respiratory rate or short breath hold time, you are looking at a Glucogenic Imbalance, particularly if the heart rate tends to be a bit high. Any time the hydration is elevated with either a slow respiratory rate or long breath hold time, you are looking at a Ketogenic patient, especially if the heart rate is somewhat slow.

It is so easy to serve your countless Glucogenic and Ketogenic patients. --- And they will be Sugar Babies never more. --- No tubby tummies, no fatigue, no pathological cholesterol and triglycerides. --- Living stronger longer thanks to you and NUTRI-SPEC.

Your Nutri-Spec thyroid insufficiency document includes an entire section on the relationship between Glucogenic/Ketogenic Balance and thyroid insufficiency. That invaluable document will always be available for the bargain price of \$99. --- But --- this is the last month it will be available for **FREE** with a purchase of only \$400.

Also --- let us give you a special this month with Oxygenic K and Oxygenic G --- 2 bottles **FREE** with every 10 you buy.