

Lowering Blood Sugar

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A few years ago, a chiropractic friend of mine said to me "Joe, I love all that biochemistry that you share on the Tuesday Minute and all the tests that we can run to help people. But if I can just get my patients' blood sugar levels around 90, keep their cortisol down and help them digest their food, I feel like I am winning the war." At the time, I thought that was a little short sighted but more and more research keeps coming out on the value of digestion, excess cortisol via stress and blood sugar regulation. If you think about it, chronic disease accounts for a majority of our health care dollars. Digestion, stress and dysglycemia are an undercurrent of almost all chronic diseases, especially blood sugar.

Be sure your patients understand "sugar is not their friend." And while you are at it, tell them "sugar is sugar is sugar." All forms of sugar ultimately break down



into glucose. The more we process out the fiber from sugar and other carbohydrates the quicker it gets into the blood stream and the more the body has to compensate.

If you really think about it, our bodies were never meant to deal with the hundreds of pounds of sugar, processed fats and fake food we consume every year. Is it any wonder our cells and cell membranes are compromised?

Insulin is essential to pull sugar or "glucose" into the cell to keep homeostasis in the blood. Because our culture consumes SO many refined carbohydrates, our very cells try to resist excess sugar intake because they can only store a certain amount as fat in a healthy manner. So in order to reduce the amount of sugar coming into the cells, the cells will ultimately reduce or down regulate the amount of insulin receptor sites. Well, that's good for the cells but bad for the

bloodstream. Insulin can't get into the cells so it remains in the blood.

Insulin is a powerful regulating hormone and affects systems that we wouldn't normally think of. Dr. Ron Rosedale in his book The Rosedale Diet quotes a study where insulin was dripped into the arteries of dogs and in just a few months the artery became blocked with plaque. Plaque buildup can deprive the heart of blood and oxygen and eventually cause a heart attack. As a person continues to ingest refined carbohydrates, excess insulin continues to be made. It drives the body into a fat storage mode rather than a fat burning mode. We use the term "insulin resistance" meaning "a healthy cells response to excess refined carbohydrates."

Insulin has many key roles that will not be fulfilled if blood sugars are elevated; let's look at a few of them. Insulin is necessary to pull magnesium into the cell. Blocked insulin receptor sites in the cell mean low intra-cellular magnesium levels. Magnesium is critical for energy production, healthy heart, vascular and blood pressure regulation. Excess insulin in the bloodstream causes retention of sodium, which causes fluid retention, which in turn causes an increase in blood pressure. Also, there is a significant correlation between elevated insulin levels and certain types of cancer, namely breast, colon, prostate and pancreatic cancer.

Poor sugar regulation and insulin dysregulation has also been indicated in aging, memory problems, fatigue, anxiety and depression, immune suppression, obesity, vascular disease and as I mentioned heart disease. I've prepared a chart you can use in your practice. You can access the chart

below. It lists the lab values I use as a screen for insulin resistance or dysregulation.

The fasting insulin levels I like to see should be 10 or lower; below 6 is ideal. Traditional lab values suggest treatment should begin when levels exceed 18; however; if fasting insulin levels are over 10, insulin resistance is well under way and needs attention and monitoring with repeated lab testing. Therapeutically, reduce the patient's level of refined and even starchy carbohydrates until insulin levels are stable and lifestyle changes are made. Also, exercise is critical for anyone who is struggling with insulin resistance. Cells will burn sugar with activity and movement so the best way to reduce sugar, besides not eating it, is to burn it.

Keep in mind, the most stubborn cases of insulin resistance usually involve one or more food allergens so reducing food sensitivities can be important. As far as supplements there are several options; but let me remind you, start treatment with the basics and adjust from there as the patient changes their lifestyle. As you know, so many botanical agents are available to assist blood sugar regulation; but if the basic building blocks are not in place, the herbs may not work as effectively.

I recommend that you order a "fasting Insulin" on all your new patients. This can be a key diagnostic tool. When my chiropractor friend said he "feels like he's winning the war" he was really referring to the results he gets by paying attention to the basics: diet, healing the gut, exercise and foundational nutrients.

Thanks for taking the time to read this week's edition. I'll see you next Tuesday.