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## Stop the snowball effect of metabolic syndrome—and gain control of your blood sugar for good

by Alicia Potee

Get ready—it's the start of a cruel couple of months for your health.

You know it's coming—after all, it happens every year. Just when you've "put away" that leftover Halloween candy, it's already time to sit down to a table packed in every possible direction with turkey, stuffing, and mashed potatoes. And then there's the pie—from apple to pumpkin, to just about *everything* in between.

But if you think the worst of your problems after this season of indulgence will be a stomachache, you'd better think again. A little bit of indigestion followed by a few extra pounds is a walk in the park compared to the devastation that full-blown Type 2 diabetes will visit on your body—and your blood sugar levels are bound to rage out of control right alongside your eating habits this time of year.

So I couldn't think of a better time to tell you about Insinase, the latest product from Metagenics, Inc., which boasts a cutting-edge approach to glucose control by stamping out the problem where it actually starts: at the cellular level.

### A botanical cure for "bad communication"

Insinase's formula consists of two botanical ingredients—reduced iso-alpha acid (RIAA) and Acacia. The first is better known as the active component of hops, the flowers that give beer its distinctively bitter flavor and pungent aroma. But well before it made its mark at the breweries, it had already built itself a fine reputation in the world of natural medicine as a sedative, a digestive aid, an anti-inflammatory, and an antibiotic.

The second ingredient, Acacia, is hardly a newcomer either, with various preparations available from a group of shrubs and trees native primarily to Australia, Africa, and southern Asia. Its indications run the gamut, from a treatment for toothaches, sore throats, and gingivitis to crucial support for colitis, skin diseases, and—you guessed it—diabetes.

But while each of these ingredients has a long history in the way of herbal healing, their most important role in this particular formula is to function as what scientists call *selective kinase response*

*modulators*—SKRMs, for short. (If you found yourself scratching your head just now, believe me, you're in good company.)

Hoping to decode the details behind such a mouthful, I asked the folks at Metagenics for a simpler, more elementary explanation—and while there's *nothing* simple about cellular biochemistry and genetics, I'll do my best to boil it down for you too.

Insinase acts directly on your *kinases*—a group of enzymes that work in every single cell in your body. Think of them as conductors, passing signals from the outside in such a way as to have a direct effect on how each cell will behave. When communicating properly, your kinases work together in a web-like fashion (called a *kinome*) to ensure that your body's performing all of its functions smoothly and harmoniously. But here's the catch: A few cookies here and a couple slices of pizza there can add up to a serious kinome communication breakdown if you let things get out of hand.

### Restore healthy responses— and reverse the damage that's already been done

In cases of metabolic syndrome, kinase signaling is affected primarily in your fat-storing cells (adipocytes)—which are also the cells most actively involved in glucose utilization and insulin signaling. Previously healthy kinase responses become confused by certain triggers—a poor diet and too little exercise, for example—and that eventually results in mayhem for just about every system in your body.

You probably already know that insulin resistance is a condition that's strongly linked to obesity. But what may not be quite as obvious is how another factor enters into this disastrous equation: inflammation.

As it turns out, too many bags of chips and evenings spent sitting on the couch can cause glycogen synthase kinase (GSK) to become overactivated—setting off what is ultimately a very dangerous chain reaction. Think of GSK as the first skier to hit the slopes after a snowstorm: All of the movement from this kinase will in turn trigger nuclear factor kappa B (NFκB)—a signal that then marks the

beginning of an inflammatory “avalanche” of cytokines. And that’s precisely why it’s one of the main kinases that scientists at Metagenics wanted to zero in on.

It just so happens that this inflammation also has a hand in shutting down your cells’ sensitivity to insulin. As you probably already know, insulin is necessary in order for your body to use glucose properly—and when your cells can’t use sugar for energy, they turn to fat as the next best thing, frantically storing it as fuel for the future. Once your adipocytes can’t hold any more fat, a signal goes out to your other organ systems telling them to start picking up the slack by storing some fat too.

And then you’re really in trouble. Like the avalanche that starts from a few flakes of snow, the accumulated stress on your body—from obesity, to inflammation, to the inability to burn fuel properly—will send you head on into a diagnosis of diabetes in no time.

But the combination of botanicals in Insinase puts an end to this snowball effect at its very beginning. It selectively restores the normal responses of several of the kinases behind your metabolic syndrome and turns their scrambled signals back in the direction of health—enabling your body, from your cells to entire organ systems, to follow suit.

### **Clinically proven to lower blood sugar and bad cholesterol**

While developing Insinase, scientists at Metagenics tested over 200 natural substances for their influence on insulin responses in adipocytes before they selected the RIAA and Acacia combo as the best performer—especially in its ability to inhibit inflammation-causing NFκB. Once they thought they had the most effective formula out there, they set out to test it in a human clinical setting. And the results that these studies yielded only backed up their hunches.

Ninety-one patients—all with similar weights,

blood pressure, waist and hip circumferences, and fasting and post-meal blood glucose levels—were evaluated in a 12-week, double-blind, placebo-controlled study. Blood was drawn three times—on the first day, after eight weeks, and after 12 weeks—to assess the formula’s effect on the various markers of metabolic syndrome.

As compared to the placebo group, participants in the RIAA/Acacia group experienced a significantly greater decrease in their homeostatic model assessment scores (a published measure of insulin resistance), and in their blood-triglyceride (TG) levels. High triglycerides (blood fats) are often the first sign of insulin resistance—and they remain high in diabetics.

Supplementation with the RIAA/Acacia blend also lowered participants’ TG/HDL-cholesterol ratio—that is, their ratio of triglycerides to high-density lipoprotein (also known as “good”) cholesterol—while the placebo group experienced no changes in this area at all.<sup>1</sup>

The formula debuted only late this past summer—so as of yet, there aren’t any case studies. But if these clinical studies are any indication, Insinase looks set to become the next big breakthrough in herbal diabetes treatments. The recommended dosage is three tablets per day, and you can expect to see results within eight to 12 weeks. The manufacturer did warn me that this powerful combo also has a slight blood-thinning effect—so if you’re taking an anti-coagulant, such as Coumadin, Insinase may not be a good choice for you.

Citation available upon request and on HSI website

**Insinase**, Center for Natural Medicine Mail Order and Online Dispensary, Ph. (888)305-4288; [www.cnm-inc.com](http://www.cnm-inc.com) or [www.naturalmedicineweb.com](http://www.naturalmedicineweb.com). At a special discount for HSI members only, one bottle of 90 tablets (a one-month supply) costs US\$47.96 plus shipping.