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Syndrome W

By Christine Soares

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Midriff weight gain in mid-life could be the sign of a serious metabolic problem. Ilene Cohen couldn't figure out what was wrong, and neither could her doctors. "I was always tired," she recalls, "working full-time and running a home, on my day off I didn't want to do anything. "I felt I was missing a lot because I only wanted to rest." Cohen, now 42, is just shy of five feet tall. She had been gaining weight too, and was up to 167 pounds. Over the years, she had sought help.

"I had different doctors, and I always complained about being very lethargic, and I went for more thyroid and glucose tolerance tests, and they all came back negative. 'Everything's fine, maybe you're working too much' they said."

Cohen remained baffled and miserable until a friend recommended one more doctor for her to try. An endocrinologist at New York Medical College in Valhalla, Dr. Harriette Mogul had been screening hundreds

of women since the college started their Menopause Health Program in 1994. She had quickly begun noticing a cluster of symptoms in a certain type of patient who came in to be evaluated for hormone replacement therapy.

"Among these patients—a narrow range of health-conscious, non-smoking, physically-active women approaching menopause—there were many complaints of weight gain, usually around the waist, after years at a constant weight. When we began seeing these symptoms clustered together with elevated blood pressure and insulin levels, we decided there was a pattern," Dr. Mogul recalls.

Finding the Root
"Ilene came to see me because she had been experiencing weight gain, and she had a particular pattern of weight gain in her waist, and she had been exercising and attempting to diet, and really wasn't able to decrease her weight," Dr. Mogul explains. "In addition, she had some blood pressure changes, she had some abnormalities in the balance of her cholesterol, so she was starting to develop some early risk factors for heart disease."

Dr. Mogul coined the term "Syndrome W" to reflect the weight gain, particularly what she calls "waist gain," and intermittent—or "white-coat"—hypertension, she'd been seeing over and over in patients like Ilene. "Women with the Syndrome also report a detectable increase in appetite, food cravings, and inability to lose weight despite exercise and attempts to diet," she adds.

The key, however, was the women's elevated insulin levels despite normal blood glucose. Dr. Mogul was sure insulin was the root cause of all the other symptoms and realized that Syndrome W was really the manifestation of a potentially lethal phenomenon known as "insulin resistance." Therefore, the name "W" seemed all the more apt because it would likely lead, as it does alphabetically, to the better known Syndrome X.

The Power of Insulin
Also an umbrella term, "Syndrome X" was coined in 1988 by Stanford University Professor of Medicine Gerald Reaven to describe the cardiovascular effects usually observed when insulin levels are persistently elevated, as they are in many diabetics. Syndrome X traits include high blood pressure, abnormalities in the amount and properties of certain blood fats, and abnormalities in blood clotting factors. Together, these are believed to contribute significantly to the unusually high rate of death from heart disease (roughly 75 percent) among diabetics.

Insulin is a powerful hormone that can constrict blood vessels and interfere with several processes in the body. But its primary job is to shepherd incoming nutrients. Released by the pancreas when we eat, insulin guides the amino acids from protein to our muscle cells, and takes fatty acids to the fat cells.

Carbohydrates are first broken down into "blood sugar" glucose, which the body uses for energy. Insulin makes sure there's never too much of that caustic fuel lingering in the bloodstream by storing excess glucose in the liver and fat cells, and shuttling just what's needed for energy at

the moment to the various cells of the body. Insulin even unlocks a sort of door on each cell, allowing glucose to enter.

But when cells no longer answer the door to insulin, the body is said to have become "insulin resistant." No one is sure what first triggers the change. Obesity is one factor observed to foster insulin resistance, but heredity also plays a role, and even a thin person can become insulin resistant.

The Glycemic Index

Proposed in 1981 by a University of Toronto endocrinologist, the glycemic index rates carbohydrate foods on a scale of 1 to 100 based on how quickly they break down into glucose after ingestion. Starches and some fruits, for example, score high because they come apart readily, resulting in a surge of glucose into the bloodstream. Unrefined grains are mostly low-glycemic because they are digested more slowly.

The original purpose of the glycemic index was to gauge how much supplemental insulin a diabetic would need following different types of meals.

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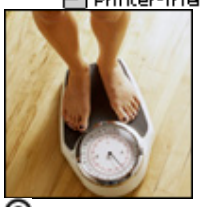

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Syndrome W (*cont'd*)

By Christine Soares

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When glucose is thus locked out of resistant cells, it has nowhere to go and starts building up in the bloodstream. The pancreas releases yet more insulin to try to compensate, and for a while, that works to force glucose through the cell doors.

An insulin resistant person can maintain normal blood glucose levels, although doing so may require insulin levels as much as 40 percent above normal. And as Stanford's Dr. Reaven has publicized, excess insulin alone can cause significant cardiovascular damage.

What's more, in at least a portion of the estimated 60 million to 80 million Americans who are currently insulin resistant, the pancreas will eventually lose its battle and glucose levels will begin creeping upward.

Untreated, 10 percent of those who started out as simply insulin resistant are likely to progress to full-blown diabetes, according to Dr. Reaven.

But only then will most people realize they have a problem. Insulin resistance has been called a "silent killer," because it is symptomless, or so it was thought.

Telltale Sign and Treatment
A study published in 1999 by researchers at Washington University in St. Louis reaffirms what Dr. Mogul had been observing in her female patients: that a tendency to accumulate fat at the midriff, creating a so-called apple-shaped body, is a strong marker for insulin resistance.

That aspect of Syndrome W, together with the other symptoms Dr. Mogul has identified in women, appears to offer a valuable set of early warning signs of insulin resistance. Dr. Mogul is currently working with a colleague to identify the symptoms of Syndrome W in men.

Meanwhile, Dr. Mogul feels a diagnosis of "W" is good news. "The positive side of Syndrome W is that it is so easy to recognize and treat, and proper treatment can delay the onset of heart disease and diabetes, or prevent it altogether," she explains. Her Syndrome W patients are put on an unrestricted-calorie,but low-glycemic diet to avoid spikes in their blood glucose levels. Most also take Metformin, an insulin-sensitizing medication, to counteract their insulin resistance.

The results can be dramatic. "Once I started going to Dr. Mogul and being on this diet, then she gave me medication, I had spunk!" Ilene Cohen attests. "I had energy, I felt like a person. I could be like everybody else, working, going out, cleaning, having fun." She's lost nearly 40 pounds, changed careers, and regained her confidence. "I feel much better about myself, I feel like I conquered a lot."

Dr. Mogul reports similar transformations and relief in many of her patients, particularly those who have sought help for years and been told there was nothing wrong with them. "I think that the reason that this wasn't previously diagnosed is that traditionally, thin male physicians who never had to struggle with their weight said, 'oh you're just eating too much and not exercising enough,' and for these women that just wasn't true.

I think if you happen to be lucky enough to see an endocrinologist, they are very aware of problems related to insulin, but they still have their own biases. If blood sugar's normal, then everything's okay," Dr. Mogul explains. When her patients "find out that there really is something that's going wrong, particularly something that can be fixed, it's really very exciting for them," she adds.

Avoiding "W" Altogether
Dr. Mogul is still working to understand why the insulin resistance that underlies Syndrome W begins at mid-life in her patients. "There seems to be a switch that goes off at 40," she observes, "The genes do change and there are some major metabolic changes at 40." Certain groups of women also seem particularly vulnerable, Dr. Mogul adds, including, "A very high percentage of Asian, Middle Eastern and Hispanic women... also, women who have had polycystic ovary syndrome, and Ashkenazi women. It's not typically a syndrome of African American women."

Dr. Mogul says that for all women, the best way to avoid developing

Syndrome W in the first place is to keep overall weight down. "Watch the calories and watch the carbohydrates," she recommends, "And don't make the mistake that low-fat means low-calorie. Also, oral estrogen is associated with weight-gain, so work with your doctor to get the prescription right if you're taking hormones. And exercise!

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