

Breaking the Vicious Cycle: Diabetes and Obesity

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A 65-year-old woman came to my clinic two years ago, asking for help with better control of diabetes and obesity. She has had type II diabetes for 20 years. She was placed on insulin about 5 years ago after discharge from hospital. She noticed that her *Lantus* and regular insulin dosage have been gradually increasing from 20 units to more than 200 units per day over the last 5 years. In the meantime, she has gained more than 100 pounds. She became very limited with her physical activity. She used to be a very active person, but she was not able to move around much due to difficult diabetes and excessive weight.

Comprehensive diabetes tests showed that her pancreas was still producing a good amount of insulin and she did not have any signs of pancreatic endocrine and exocrine insufficiency. Her major problem is that her body is highly resistant to insulin, or in other words, insensitive to insulin. She fell into a vicious cycle in which more insulin caused more weight gain and the resulting weight gain led to more resistance to insulin, and then she had to be placed on higher dosage of insulin. She needs medication to help her body become sensitive to insulin.

At that time I was not sure that she could be completely off insulin, but I assured her that we would work together to reverse the vicious cycle. I adjusted her diabetic medications and gradually tapered her off insulin over the next two years. She lost about 70 pounds over the last two years and became active again. We are working to decrease her oral diabetic medication and trying to lose more weight down the road.

Most type II diabetic patients are obese. On the other hand, obese people are more likely to develop type II diabetes. Obesity decreases the quantity and quality of insulin receptor, which requires more insulin to activate those receptors. Insulin also works as growth hormone which increases body weight. Obese diabetic patients usually have much higher blood intrinsic insulin secreted by beta-cells in pancreas to overcome the tissue resistance to insulin. Adding more extrinsic insulin to control blood sugar does not solve the underlying problem of insulin resistance but only makes things worse like the vicious cycle mentioned above. If you have difficult type II diabetes currently on insulin, please contact Dr. Jeff Ye, North Atlanta Medical & Digestive Care at 770-346-0900. We can help!