

# Goodbye to Insulin

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Recently I have several happy patients graduating from insulin program. They are so grateful that they don't have to stick their body to inject insulin and check the blood sugars several times a day. They are now on pill medications and only need to check their blood sugars on special occasions. These type 2 diabetic patients had been put on very high dose of insulin ranging from 140 to 200 units per day for several years with significant weight gain.

The mechanism for type 2 diabetes includes many components in addition to obesity, which together lead to the worsening of glycemic control and loss of beta cell function over time. These components include impaired normal biological response to insulin in the liver, muscle and fatty tissue (insulin resistance), defects in the glucagon regulation and decreased beta cell mass. Uncontrolled hyperglycemia, dyslipidemia and hypertension can all contribute to the accelerating progression of type 2 diabetes. These patients need comprehensive management of these compounding risk factors. Type 2 diabetic patients in the long run will end up dependent on insulin, but efforts should be made to keep their beta cell mass and delay the process. There is a lot of progress made in this field. Several new medications are currently available to help diabetic patients to reserve their beta cell mass along with the benefit of weight loss. We should exhaust all these medication therapies before completely turning to insulin.

There are lots of diabetic patients who have transient loss of beta cell function and increased resistance to insulin due to multiple reasons, especially uncontrolled hyperglycemia. They will be put on insulin while they are in hospital. They continue to receive insulin after they are discharged home. They are assumed insulin-dependent and kept on insulin without trying oral anti-diabetic medications. Some of these patients can gradually recover their beta cell function and can be successfully treated without insulin in a couple of weeks.

If you have any questions about diabetic management, please contact Dr. Jeff Ye, North Atlanta Medical & Digestive Care at 770-346-0900. We can help!