

November 14: World Diabetes Day



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# Type 2 Diabetes, Is it Reversible?



**W**orld Diabetic Day, celebrated each year on 14 November, raises public awareness of diabetes, and the need for health authorities worldwide to make coordinated and concerted efforts to combat this increasingly critical global health issue. In 2023, the campaign will focus on the importance of knowing your risk of type 2 diabetes, and knowing how to help delay or prevent the condition, as well as highlight the impact of diabetes-related complications.



Type 2 diabetes is a life-long, chronic disease in which the body either does not produce enough insulin, or the cells in the body do not respond to insulin effectively. Both of these problems result in insufficient insulin to move the glucose from the blood into the cells of the body. When the cells do not receive sufficient glucose they cannot function properly, which leads to further complications.

Type 2 diabetes used to be known as adult-onset diabetes, but both type 1 and type 2 diabetes can begin during childhood and adulthood. Type 2 is more common in adults, but the increase in the number of children with obesity has led to more cases of type 2 diabetes in younger people. Type 2 diabetes is more likely to occur in people who are above the age of 40, are overweight, or have a family history of diabetes. Certain ethnic and racial groups also have higher risk for type 2 diabetes.

Can type 2 diabetes be reversed? The very simple answer to this question is 'yes'. But it is more correct to say type 2 diabetes is in remission. To be in remission, your blood sugar levels must remain normal for at least three months without using glucose-lowering medications. As type 2 diabetes is a chronic disease, we cannot say that it is completely cured, but rather that it is in remission.

While type 2 diabetes cannot be cured, individuals can achieve remission, which may involve their glucose levels returning to non-diabetic or pre-diabetic ranges. Remission is typically accomplished through significant weight loss. It is important to note that we refer to remission rather than a cure, because the remission is not permanent, as beta cells in the pancreas are usually damaged, and the genetic factors contributing to diabetes susceptibility remain unaffected. Over time, the disease may reassert itself, leading to continued destruction of the beta cells. Environmental factors, such as weight gain, can also trigger symptomatic glucose intolerance.

In some cases, patients may enter remission if they were initially glucose toxic before treatment, which can temporarily inhibit insulin production by the beta cells. When glucose levels are reduced, the beta cells regain functionality. This situation is often observed in individuals with untreated diabetes for an extended period and significantly elevated A1c levels. They may initially require insulin, but once glucose levels are lowered, and the beta cells recover, they can often transition to oral medications or lifestyle management.

Gastric bypass is typically considered for individuals with a high BMI and medical conditions putting them at risk of serious health complications. However, for most people, managing type 2 diabetes can be achieved through behavior modification, often combined with medications and lifestyle changes. Excess weight contributes to insulin resistance, so even a modest weight loss of 7 to 10 percent can improve the body's ability to respond to insulin.

The best method to detect Insulin resistance prior to being a diabetic is checking your blood HOMA IR levels. An experienced physician can evaluate your chance and risk for becoming a diabetic by assessing certain blood tests and physical examination. Family history, sedentary lifestyle, obesity, gestational diabetes, metabolic syndrome (high blood pressure, high blood sugar, excess body fat around the waist, and abnormal cholesterol levels) are the major risk factors for diabetes.