

Glucose Regulation and Type 2 Diabetes

The diagnosis of type 2 diabetes is becoming increasingly common in U.S. kids and teens, especially in those who are overweight. Some studies report that between 8% and 45% of children who've been newly diagnosed with diabetes have the form known as type 2.

Types of Diabetes: Type 1 and Type 2

The two types of diabetes are **type 1** and **type 2**. Both cause blood sugar levels to become higher than normal but do so in different ways.

[Type 1 diabetes](#) occurs when the immune system attacks and destroys the cells of the pancreas that produce insulin. Kids with type 1 diabetes need insulin to help keep their blood sugar levels within a normal range.

Type 2 diabetes is different. Unlike someone with type 1 diabetes, a person with type 2 diabetes still produces insulin but the body doesn't respond to it normally. Glucose is less able to enter the cells and do its job of supplying energy (this is called [insulin resistance](#)). This causes the blood sugar level to rise, making the pancreas produce even more insulin. Eventually, the pancreas can wear out from working overtime to produce extra insulin and may no longer be able to produce enough insulin to keep blood sugar levels normal.

People with insulin resistance may or may not develop type 2 diabetes — it all depends on whether the pancreas can produce enough insulin to keep blood sugar levels normal. Repeatedly high blood sugar levels are a sign that a person has developed diabetes.

Kids and teens with type 2 diabetes use diet, exercise, and medicines that improve the body's response to insulin to control their blood sugar levels. Some may need to take [insulin shots](#) or use an [insulin pump](#), too.

Who Gets Type 2 Diabetes?

Although no one knows for certain what causes type 2 diabetes, there seems to be a genetic risk. In fact, it's estimated that 45% to 80% of affected kids have at least one parent with diabetes and may have a significant family history of the disease. In some cases, a parent may be diagnosed with type 2 diabetes at the same time as the child.

Most people who develop type 2 diabetes are [overweight](#). Excess fat makes it harder for the cells to respond to insulin. And being inactive further reduces the body's ability to respond to insulin. In the past, doctors called this type of diabetes **adult-onset diabetes** because it almost exclusively affected overweight adults. Today, that description is no longer accurate. More kids and teens are being diagnosed with type 2 diabetes,

Thoughts and Questions I Have While Reading

Focus Question: How does the body maintain blood sugar levels?

probably because more kids and teens are overweight.

Certain ethnic groups also tend to be more prone to developing type 2 diabetes, including people of Native American, African American, Hispanic/Latino, or Asian/Pacific Island descent. Also, kids in [puberty](#) are more likely to develop the disease than younger kids, probably because of normal rises in hormone levels that can cause insulin resistance during this stage of rapid growth and physical development.

Adapted from:

Kids Health, <http://kidshealth.org/parent/medical/endocrine/type2.html#>