

**Family Medicine Clerkship  
Plain Language Summary  
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**Title:** Can medicine or exercise and eating healthy stop you from getting diabetes?

**Plain Language Summary:**

**What is Type 2 Diabetes?**

Type 2 Diabetes is a disease that effects how our body uses sugar, our main energy source for all our cells. When we eat a meal, part of that meal is broken down into a sugar called glucose. Almost all the cells in our body need glucose for energy, and it gets to those cells through our bloodstream. When we don't have enough glucose in our blood, our body tells us it is hungry so we eat more food and get more glucose into our blood.

In order for glucose to get into our cells, we need to have something called insulin in our blood with the glucose. Insulin is a hormone that comes from an organ by our stomach called the pancreas. Insulin acts like a key to let glucose into our cells so our cells can use glucose for energy.

People with Type 2 Diabetes can have two kinds of problems: their cells can be resistant to insulin which means glucose can't get into the cells, and their pancreas can get "worn out" and stop making enough insulin. When people's cells are resistant to insulin and/or their bodies are not making enough insulin, all the glucose gained through eating builds up in their blood since it can't get into their cells.

Without our body's main source of fuel, people with Type 2 Diabetes can get a number of different complications including having a heart attack, losing their feet, or going blind.



**What is PreDiabetes or Impaired Fasting Glucose or Impaired Glucose Tolerance and how can we stop this from becoming Type 2 Diabetes?**

PreDiabetes, Impaired Fasting Glucose, and Impaired Glucose Tolerance all mean you have a high amount glucose in your blood—but not enough to have diabetes. Having one of these disorders does mean that you are at a higher risk for getting Type 2 Diabetes, but there are things you can do with your doctor to prevent you from getting Type 2 Diabetes or delay the time it takes for you to get Type 2 Diabetes. The most important thing you can do to prevent Type 2 Diabetes is to eat healthy foods and exercise every day for at least 20 minutes. This means eating lots of vegetables and fruits and less fat and sugary foods. Exercising can be running, walking, playing outside, biking, or anything else you like to do that keeps you active. Another option your doctor might try is a drug called Metformin. This is a medicine you will take two times per day that will help to keep the amount of glucose in your blood at normal levels. If you do take this drug, it is important to also eat healthy and exercise as well to do everything you can to not get Type 2 Diabetes.

**Additional Resources:**

Diabetes Prevention Program

<http://diabetes.niddk.nih.gov/dm/pubs/preventionprogram/index.aspx>

National Diabetes Education Program

<http://www.ndep.nih.gov/>

American Diabetes Association

<http://www.diabetes.org/>

**Key Words:**

Prediabetes

Impaired Glucose Tolerance

Type 2 Diabetes

Diabetes Prevention Program

Metformin

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