

Diabetes Mellitus

Basic facts

This handout gives basic facts about diabetes. It explains the main types of diabetes, what causes it, who is most at risk, how to lower your risk, and what can happen if diabetes is not controlled.

What is diabetes?

The term *diabetes mellitus* comes from 2 Greek words. *Diabetes* means “siphon” (or faucet), and *mellitus* means “honey-flavored.” Over 2,000 years ago, Greek doctors found that people with this disorder passed large amounts of urine (like a faucet) and that the urine was sweet to the taste! This was due to the level of *glucose* (sugar) in their blood.

Diabetes is not just one disease. Many different disorders can cause a person’s blood glucose level to rise out of control. When this happens, we say they have some form of diabetes mellitus.

How common is diabetes?

Over 9% of people in the U.S. (9 out of 100 people) have some type of diabetes. This is more than 29 million people.

And, 86 million adults in the U.S. have *pre-diabetes*. This is more than 1 out of 3 people. Pre-diabetes means that a person’s blood sugar level is higher than normal, but it is not high enough to be called diabetes.

What controls blood glucose level?

Your blood always has some glucose in it because your body uses glucose for fuel 24 hours a day. Glucose comes from the food you eat. Your liver also makes glucose to supply your body with energy overnight and between meals.

The hormone *insulin* controls the amount of glucose in your blood. Insulin is released from the *pancreas*,



You can help lower your risk for diabetes by walking for 30 minutes at least 5 days a week.

an organ near the stomach. Insulin helps move glucose into your body's cells, where it is used for energy.

What causes blood glucose to rise out of control?

In a person with diabetes, their pancreas makes little or no insulin, or their cells do not use insulin very well. There are 3 main reasons this occurs:

- The person is overweight or obese, causing the liver, muscles, and fat cells to become *insulin resistant*. This means that the body produces insulin but does not use it well.
- The person's pancreas stops producing enough insulin to lower blood glucose.
- The person's liver makes too much glucose.

What are the main types of diabetes?

Type 1 Diabetes

Type 1 diabetes occurs when the insulin-producing cells in the pancreas are destroyed by the person's own immune system. This occurs most often in children, but it can occur at any age. People with type 1 diabetes must take 2 or more daily insulin shots (injections) in order to live.

Type 2 Diabetes

Type 2 diabetes is the most common type of diabetes. It usually occurs in adults, but it can also occur in overweight and obese children.

In type 2 diabetes, the muscles and liver do not use insulin as they should. The pancreas then makes more insulin to overcome this resistance.

But, the pancreas cannot keep making so much insulin long-term. Over time (usually years), the pancreas begins to make less and less insulin. This raises blood glucose levels. At this point, the person may need diabetes medicine (pills or injections) to control their blood glucose.

Secondary Diabetes

Secondary diabetes is diabetes caused by another disease or condition that involves the pancreas. For example, if a person has a transplant surgery, insulin resistance can result from taking steroid medicines, such as *prednisone*, or anti-rejection drugs. Also, some kinds of tumors produce steroid hormones, which raise blood glucose levels.

Secondary diabetes can also be caused by diseases or conditions that keep insulin from working well, such as:

- Cystic fibrosis
- *Pancreatitis* (inflammation of the pancreas)
- Pancreatic cancer

Gestational Diabetes

Gestational diabetes is a type of diabetes that can develop in pregnant women who do not already have diabetes. In most cases, it goes away after the baby is born. But, it is important to diagnose and treat gestational diabetes to ensure good health for both mother and baby. Also, women with gestational diabetes are at greater risk of developing type 2 diabetes later in life.

Who is at risk for diabetes?

- Being overweight or obese increases your risk of getting type 2 diabetes.
- Being physically inactive increases your risk of getting type 2 diabetes.
- Having a close relative with diabetes also increases your risk.
- For genetic reasons, these racial and ethnic groups have a greater chance of getting diabetes:
 - American Indians
 - African Americans
 - Hispanics/Latinos
 - Asian Americans
 - Pacific Rim Islanders

How can I lower my risk for diabetes?

There is no evidence that diabetes is caused by eating too much sugar. But you can lower your risk of getting diabetes by:

- Losing as little as 10 pounds, if you are overweight
- Eating healthy foods
- Walking for 30 minutes at least 5 days a week

What can happen if diabetes is not controlled?

Over many years, blood glucose that is too high or too low can damage a person's heart, blood vessels, and nerves. As a result, they can have:

- Loss of feeling in their feet or legs
- Vision changes
- Kidney problems
- Gum problems or tooth loss
- More infections and slower wound healing

To lower your risk of having these problems, keep your blood glucose as close to normal levels as you can.

Questions?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.

Endocrine and Diabetes Care Center: 206.598.4882

UW Medicine Neighborhood Clinics: 206.520.5000

Other patients: Please call your healthcare provider:
