

An Overview of Diabetes

What is diabetes?



Diabetes is a disease in which the body is unable to properly use and store glucose (a form of sugar). Glucose backs up in the bloodstream — causing one's blood glucose (sometimes referred to as blood sugar) to rise too high.

There are two major types of diabetes.

- **Type 1** (formerly called juvenile-onset or insulin-dependent) diabetes, the body completely stops producing any insulin, a hormone that enables the body to use glucose found in foods for energy. People with type 1 diabetes must take daily insulin injections to survive. This form of diabetes usually develops in children or young adults but can occur at any age.
- **Type 2** (formerly called adult-onset or non-insulin-dependent) diabetes results when the body doesn't produce enough insulin and/or is unable to use insulin properly (insulin resistance). This form of diabetes usually occurs in people who are over 40, overweight, and have a family history of diabetes, although today it is increasingly occurring in younger people, particularly adolescents.

How do people know if they have diabetes?



People with diabetes frequently experience certain symptoms. These include being very thirsty, frequent urination, weight loss, increased hunger, blurry vision, irritability, tingling or numbness in the hands or feet, frequent skin, bladder or gum infections, wounds that don't heal, and extreme unexplained fatigue. In some cases, there are no symptoms — this happens at times with type 2 diabetes. In this case, people can live for months, even years without knowing they have the disease. This form of diabetes comes on so gradually that symptoms may not even be recognized.

Who gets diabetes?



Diabetes can occur in anyone. However, people who have close relatives with the disease are somewhat more likely to develop it. Other risk factors include obesity, high cholesterol, high blood pressure, and physical inactivity. The risk of developing diabetes also increases as people grow older.

People who are over 40 and overweight are more likely to develop diabetes, although the incidence of type 2 diabetes in adolescents is growing.

Diabetes is more common among Native Americans, African Americans, Hispanic Americans and Asian Americans/Pacific Islanders. Also, people who develop diabetes while pregnant (a condition called gestational diabetes) are more likely to develop full-blown diabetes later in life.

How is diabetes treated?

There are certain things that everyone who has diabetes, whether type 1 or type 2, needs to do to be healthy.



People with diabetes need to **have a meal (eating) plan**.

They need to pay attention to how much **physical activity** they engage in, because physical activity can help the body use insulin better so it can convert glucose into energy for cells.



Everyone with type 1 diabetes, and some people with type 2 diabetes, also need to take **insulin injections**.

People with diabetes need to **learn how to monitor their blood glucose**. Daily testing will help determine how well their meal plan, activity plan, and medication are working to keep blood glucose levels in a normal range.



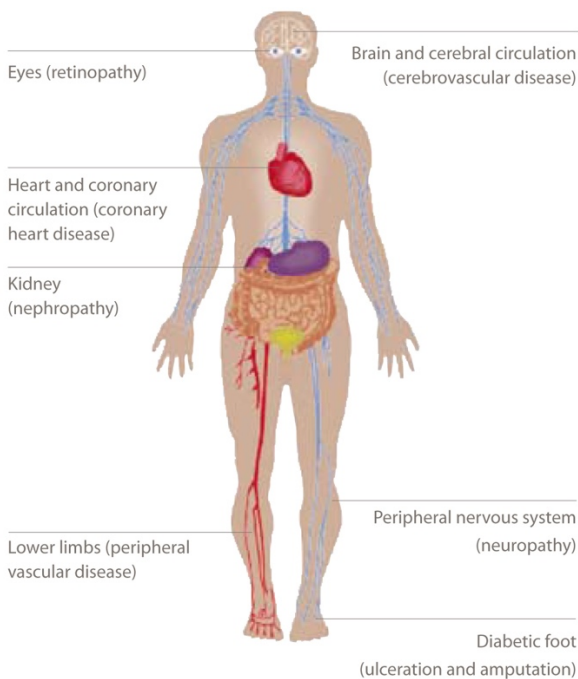
Everyone who has diabetes should be seen at least once every six months by a diabetes specialist (an endocrinologist or a diabetologist). He or she should also be seen periodically by other members of a **diabetes treatment team**, including a diabetes nurse educator, an ophthalmologist, and a dietitian who will help develop a meal plan for the individual.



Ideally, one should also see **an exercise physiologist** for help in developing a physical activity plan, and, perhaps, a social worker, psychologist or other **mental health professional** for help with the stresses and challenges of living with a chronic disease.

What other problems can diabetes cause?

THE MAJOR DIABETIC COMPLICATIONS



Source: *Diabetes Atlas* 3rd Ed., © International Diabetes Federation, 2006

Your healthcare team will encourage you to follow your meal plan and exercise program, use your medications and monitor your blood glucose regularly to keep your blood glucose in as normal a range as possible as much of the time as possible.

Why is this so important? Because poorly managed diabetes can lead to a host of long-term complications — among these are **heart attacks, strokes, blindness, kidney failure, and blood vessel disease** that may require an amputation, nerve damage, and impotence in men.

But happily, a nationwide study completed over a 10-year period showed that if people keep their blood glucose as close to normal as possible, they can reduce their risk of developing some of these complications by 50 percent or more.

Can diabetes be prevented?



Maybe someday. Type 2 diabetes is the most common type of diabetes, yet we still do not understand it completely. Recent research does suggest, however, that there are some things one can do to prevent this form of diabetes.

Studies show that lifestyle changes can prevent or delay the onset of type 2 diabetes in those adults who are at high risk of getting the disease. **Modest weight loss** (5–10% of body weight) and **modest physical activity** (30 minutes a day) are recommended goals.