

What is diabetes?

Provided by Munson Medical Center's Diabetes Education Research

When you have diabetes, the food you eat cannot be used properly because your body is not making enough insulin (a hormone produced by the pancreas) OR the insulin you have is not working the way it should. Most of the food we eat is broken down in our stomachs into a simple form of sugar called glucose. This glucose is our body's main source of energy. As this glucose enters our bloodstream it is carried everywhere throughout our body. This rise in blood glucose signals the pancreas to release insulin into the bloodstream. Insulin helps the glucose get inside of our cells for our cells to use the glucose as energy. If your pancreas makes little or no insulin OR the insulin is not working properly the glucose cannot enter the cells, it stays trapped in the bloodstream, raising the amount of sugar in your blood to abnormally high levels.

There are two main types of diabetes:

Type 1 diabetes occurs most frequently in children and young adults, although it can occur at any age. Type 1 diabetes accounts for 5-10% of all diabetes in the United States. There does appear to be a genetic component to Type 1 diabetes, but the cause has yet to be identified.

Type 2 diabetes is much more common and accounts for 90-95% of all diabetes. Type 2 diabetes usually occurs in adults over the age of 30, however recently Type 2 has begun developing in children. There is a strong correlation between Type 2 diabetes, physical inactivity and obesity.

What are the symptoms of diabetes?

If you have more than one of these symptoms you may want to ask your doctor to test your blood sugar.

- Unusual thirst
- Frequent urination
- Unexplained tiredness
- Blurred vision

- Slow-healing cuts
- Rapid weight loss (Type 1 diabetes)
- Numbness or tingling in hands or feet

Symptoms may occur rapidly with Type 1 diabetes; however, with Type 2 diabetes the onset may be slower and may not be noticed.

How is diabetes diagnosed?

The diagnosis of diabetes is made by a simple blood test measuring your blood glucose level. Usually these tests are repeated on a subsequent day to confirm the diagnosis.

Blood Test	Normal Range	Pre-diabetes	Diabetes
Fasting blood glucose (8-hour fast)	Less than 100 mg/L	100-125 mg/dL	126 mg/dL or greater on 2 occasions
Oral glucose tolerance test	Less than 140 mg/dL after 2 hours	140-199 mg/dL after 2 hours	200 mg/dL or greater after 2 hours
Hb A1c	5.6% or less	5.7%-6.4%	6.5% or greater

If you are diagnosed with diabetes, what should you do?

- Request a referral to a certified diabetes educator and/or a dietitian.
- Begin to make life style changes.
- Begin an exercise program
- Decrease portion size
- Make healthy food choices
- Limit your intake of concentrated sweets

- Increase your fiber intake

Get informed. If you have diabetes, there are many things you can do to help yourself. Medication is only one aspect of your care; maintaining a healthy weight, increasing your physical activity, eating healthy foods, testing your blood sugars, taking your medications as prescribed, attending diabetes education programs, and consulting with your health professional to keep your blood sugar in control will help you control your diabetes and stay well. The amount of self-management you can achieve will affect the quality of life you lead.

What is the treatment for diabetes?

As yet, there is no “cure” for either type of diabetes, although there are many ways of keeping diabetes under control. Diabetes treatments are designed to help the body to control the sugar levels in the blood. Studies have shown that good control of blood sugar is the key to avoiding diabetes related complications.

- Type 1 diabetes requires insulin. Injected insulin replaces the insulin missing in the body. You will need to learn how to balance your insulin with your food intake and your physical activity. It is important that you work with a diabetes educator and are under the care of a diabetes team, who can assist you in managing your diabetes.

- Type 2 diabetes treatment will vary dependent on your blood sugar levels. Many patients are counseled to change their lifestyle and lose weight. It is important to work with a diabetes educator and dietitian. Treatment begins with changing certain food choices and beginning an exercise program. Diabetes is a progressive disease, and the treatment may change over time, requiring oral medication; if you are already taking medication, you may need an increased dose or multiple medications, and eventually, you may need to start on insulin. See your doctor every three months until your blood sugar is in control.

What is good control?

The A1C test provides you and your doctor with an assessment of the overall control of your diabetes. In simple terms, this test measures the sugar coating on red blood cells. The life of a red blood cell is three months, so this test should be done every three to six months to assess your blood sugar control. Your daily blood sugar results will also provide you with helpful information on the impact

of foods, physical activity, and medications. Together these tests should help you manage your diabetes. Although you may not feel sick, high blood sugar levels are damaging blood vessels and your organs. Complications of diabetes are preventable if you keep your blood sugar as close to normal as possible. The goal is an A1C level between 6.5% -7%.

It is important to take care of your self. Be sure you work with your healthcare provider.

Yearly:

- Complete physical exam, foot exam, cholesterol profile, and urine microalbumin tests.
- Dilated eye exam by an ophthalmologist.
- Referral to a diabetes educator
- Referral to a smoking cessation program if needed.

Every 3-6 months:

- A1C
- A dental exam.

Each Doctor visit:

- Weight and blood pressure