

Diabetes: Type 1

What is type 1 diabetes?

Your body changes most of the food you eat into a form of sugar (also called glucose). Insulin is a hormone that allows this sugar to enter all the cells of your body and be used as energy. A person who has type 1 diabetes can't make insulin. Without insulin, sugar builds up in the blood and can damage internal organs, the nervous system and blood vessels.

Type 1 diabetes is also called insulin-dependent diabetes. It is sometimes called juvenile diabetes because it is usually discovered in children and teenagers, but adults may also have it.

What problems can type 1 diabetes cause?

People with type 1 diabetes are more likely to have heart disease, stroke, kidney failure, high blood pressure, blindness, nerve damage and gum disease. These things happen 2 to 4 times more often in people with diabetes than in people without diabetes. When you have type 1 diabetes, blood may not move as well through your legs and feet. If left untreated, this condition can become very serious and lead to amputation (removal) of your feet. Untreated type 1 diabetes can cause a person to go into a coma. It can even kill you. The good news is that treatment can help prevent these problems.

How can these problems be prevented?

To help prevent these problems, follow your doctor's advice about diet and exercise. Also, carefully follow your doctor's instruction for taking your insulin. You shouldn't smoke, and you should keep your blood pressure and cholesterol at healthy levels. If you do all of these things, your risk of problems from diabetes can be cut by more than 75 percent.

What should I eat?

The best diet for people with type 1 diabetes is low in fat, low in salt and low in added sugars. It has lots of complex carbohydrates (like whole-grain breads, cereals and pasta), fruits and vegetables. This diet will help you control your blood sugar level, as well as your blood pressure and cholesterol levels. It's also important to watch your portion size so you can maintain a healthy weight.

How do I control my blood sugar level?

People with type 1 diabetes take insulin to keep their blood sugar level as close to normal as possible. Your doctor will explain how and when you should take insulin.

Many people with type 1 diabetes take short-acting insulin before each meal. You can adjust the amount of insulin you take for each meal based on how many calories you eat and how physically active you plan to be in the next 3 to 4 hours. Most people with type 1 diabetes need to take about 8 to 10 units of insulin for every 500 calories they eat. (An average daily diet has about 2,000 to 2,500 calories.) You may need slightly less or slightly more insulin, depending on how your body reacts to insulin.

To keep their blood sugar levels from rising during the night, most people with type 1 diabetes need to take an intermediate-acting insulin before they go to sleep. Your doctor will work with you to determine the right amount of insulin for you to take with meals and at bedtime.

How will I know if my blood sugar level is too high?

The best way to monitor your blood sugar level is to test it at least 3 times each day, including at bedtime.

What should I do if my blood sugar level is too high?

If your blood sugar level goes higher than it should, you may need to take an extra dose of short-acting insulin to return your blood sugar to the normal range. Your doctor can tell you how much insulin you need to take to lower your blood sugar level.

What are the signs of low blood sugar?

People who take insulin may have times when their blood sugar level is too low. This low blood sugar is called hypoglycemia. Signs of hypoglycemia include the following:

- Feeling tired for no reason
- Yawning a lot
- Being unable to speak or think clearly
- Losing muscle coordination
- Sweating
- Twitching
- Having seizures
- Suddenly feeling like you're going to pass out
- Becoming very pale

If you have any of the problems listed above, eat or drink something sweet, such as fruit juice, regular (not diet) soda or candy, right away.

Be sure you teach your friends, work colleagues and family members how to treat hypoglycemia, because sometimes you may need their help. Also, keep a supply of glucagon at home. Glucagon is another medicine you inject in a shot. It will raise your blood sugar level. If you are unconscious or can't eat or drink, another person can give you a shot of glucagon. This will bring your blood sugar level back to normal.

How else can I prevent complications?

The tips below can help you stay healthy if you have type 1 diabetes:

- Keep your blood pressure below 130/85 mm Hg.
- Keep your cholesterol level under 200 mg.
- Take care of your feet and check them every day for signs of infection.
- Have an eye exam every year to check your vision.
- See your dentist twice a year to check your teeth and gums.

Can I live a normal life with diabetes?

Yes, you can live a normal life. Remember, many successful athletes and people in all professions have type 1 diabetes. You can stay healthy if you do what it takes to control diabetes.

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This handout provides a general overview on this topic and may not apply to everyone. To find out if this handout applies to you and to get more information on this subject, talk to your family doctor.

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