

# Type 1 Diabetes

*What is type 1 diabetes?* Type 1 diabetes, commonly called juvenile diabetes, is caused by an inability of the pancreas to make sufficient insulin to control blood sugars. It is an autoimmune disease, usually caused by the immune system attacking the beta cells in the pancreas that are responsible for making insulin.

*Why did I get type 1 diabetes?* Type 1 diabetes tends to run in families, but the underlying cause is not known.

*Can I take pills to control my blood sugar?* Patients with type 1 diabetes by definition need to take insulin. Your doctor may add oral medication such as metformin to help the insulin work better, but insulin therapy is usually required.

*What is a hemoglobin A1C?* Hemoglobin A1C is a blood test that gives a rough estimate of how high your blood sugars have been on average over the last 2-3 months. Your doctor will determine your goal hemoglobin A1C, which is usually around 6.5-7.0.

*Why is it important to control my diabetes?* Uncontrolled diabetes is a contributing cause of many serious health problems, including heart disease, strokes, kidney disease, blindness, and nerve damage. It is a leading cause for dialysis use and for infections requiring amputations. In addition, very high blood sugars can sometimes result in serious electrolyte abnormalities requiring hospitalization (diabetic ketoacidosis).

*How can I prevent complications of diabetes?* First and foremost, keeping your blood sugars controlled has been proven to help prevent complications of diabetes. It is also important to have a dilated eye exam, a foot exam, and a urine test every year. Your doctor may also recommend a cardiac stress test.

*How do I know if my blood sugar is low, and what should I do about it?* It is important to be aware of the symptoms and signs of hypoglycemia (low blood sugar, defined as less than 70), and be able to treat it. Symptoms include shakiness, hunger, feeling weak, clammy, and slowed thinking or difficulty concentrating. If hypoglycemia is severe, it can result in loss of consciousness and seizures. Some patients who have hypoglycemia frequently may not experience many symptoms of hypoglycemia. If you think your blood sugar is low, check your blood sugar to make sure. You should also have your glucometer with you. If it is low, drink a glass of juice, a half of a regular soda, a few hard candies, or some glucose tablets. Retest your blood sugar in 30-60 minutes. If you are prone to severe hypoglycemia, you should have an emergency glucagon shot kit at home; ask your doctor for details. Talk to your doctor if you

have frequent hypoglycemia, since this may indicate that you need to change your insulin dosage.

*Can I use an insulin pump to control my blood sugars?* Most patients with type 1 diabetes do well with an insulin pump, which is a device that delivers insulin constantly under the skin. While insulin pumps do allow for greater flexibility in diet and lifestyle, it is important to remember that insulin pumps do not eliminate the need for the patient to test his/her blood sugars and pay attention to diabetes care. Talk to your doctor to determine if a pump is right for you.

*Can I use a glucose sensor?* Several companies now make glucose sensors that attach under the skin and monitor your sugar levels constantly. These are often used in conjunction with an insulin pump. They are particularly helpful for patients who experience frequent hypoglycemia or wide fluctuations in blood sugars, and have alarms that can be programmed to sound when your blood sugar drops or rises to a certain preprogrammed threshold, or when it is changing rapidly. Again, it is important to note that sensors do not eliminate the need to check your blood sugars by fingerstick. Talk with your doctor to learn more.