



Controlling Diabetes through Medicine, Diet, and Exercise

Diabetes occurs when the body does not make insulin or it does not use insulin well.

Without insulin, the body can't use carbohydrates for energy. Carbohydrates are simple sugars and starches in food that break down into glucose. When glucose can't be used, it builds up in the blood and causes high blood sugar. Having a high blood sugar for a long time can cause many health problems. These include nerve damage, kidney problems, high blood pressure, heart problems; and in severe cases, blindness, or death. You CAN avoid these health problems if you manage

your diabetes well. There are two types of diabetes, Type I and Type II.

Type I diabetes is most often found in kids and young adults. It accounts for about 5% of people who have diabetes. It runs in families and is thought to be caused by the body attacking itself. In Type I diabetes, the body does not make the hormone insulin. People with type I diabetes must take insulin to live.

Type II diabetes is more often found in adults. It has more recently also been found in children. Type II diabetes accounts for most of the people who have diabetes, about 95%. It runs in families and relates to being overweight and other factors. It occurs when the body can't use insulin well. This condition is called

insulin resistance. As this type of diabetes gets worse, the pancreas makes less insulin. People with type II diabetes may be treated in different ways. They may use diet and exercise, oral medicines, and/or insulin.

Insulin is a hormone needed to make use of glucose from carbohydrates. Insulin allows the glucose to be used by the cells in your body by opening up "gates" for cell entry. When you don't have enough insulin or you can't use it well, the gates can't open. This keeps glucose from being used as energy, and instead it builds up in your blood. There are people who have both type I and type II diabetes. They can't make enough insulin, and they can't use insulin well.

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YOU CAN MANAGE YOUR DIABETES IN THESE WAYS:

- **Eat healthy** – Eating healthy helps control your blood sugar and reduces your risk of heart disease and high blood pressure. It can lower your calorie intake and body fat. Some steps you can take are:
 - Eat different types of foods (lean meats, vegetables, beans, whole grains, fruits)
 - Limit foods high in sugar, bad fats, and salt
 - Limit alcohol intake
 - Control food portion sizes
 - Talk to your doctor and a dietician to assist in your meal plans
- **Exercise on a regular basis** – Exercise helps your body better use glucose as energy. During exercise, muscles contract and use up glucose, without needing the help of insulin. This lowers your blood sugar. It can also burn calories and reduce your body fat.
- **Take your medicine** – There are many drugs that your doctor can order to control your blood sugar. Be sure to take these on a routine basis. They may be oral (by mouth) or in a shot. For most of these drugs, it may take as long as three months before you notice it is helping your blood sugar control. There may be times when one

drug is not enough. Your doctor may increase the dose or add another drug. As with any drug, your diabetes medicines may have side effects. Be sure you tell your doctor how you feel and about any effects that you experience.

- **Check your blood sugar** – Checking your blood sugar regularly will help you and your doctor manage your treatment. You should check your blood sugar at the times and as often as your doctor suggests. It is helpful if you keep a log of the results, along with activities that affect your blood sugar. This includes date/time of dietary intake, exercise you have had, and insulin dose taken.

While proper diet, exercise, and medicine will help you manage your diabetes, you must approach these with care. Less than normal eating or skipped meals, excessive exercise, or medicines may cause low blood sugar (hypoglycemia). Symptoms of low blood sugar include: confusion, dizziness, feeling shaky, hunger, headaches, irritability, pounding heart, or racing pulse. You can treat non-severe symptoms of low blood sugar with fruit juice, honey, or hard candy. You may want to buy glucose tablets that you can take if this occurs.

Your food intake, activity level, consistency in taking your medicines, and blood sugar monitoring all impact your diabetes control. Keeping an accurate log will help your doctor manage your diabetes. It will also help you gain insight about your body in relation to your diabetes. Show this log to your doctor at every office visit. Your doctor may order other tests to check your blood sugar control. He or she may request a Hemoglobin A1c (HbA1c) to check your blood sugar control for the past three months. Your doctor will have an A1c goal that is specific for you.

Remember, you hold the key to managing your diabetes.