Understanding Diabetes

Whether you have had diabetes for many years or have just been told you have diabetes, you are not alone. More than 30 million people in the United States (9.4%) have diabetes. The information in this book will help you understand more about diabetes and how to live successfully with it.

About diabetes

Diabetes is a disease in which your blood glucose, or blood sugar, levels can get too high. Glucose comes from the foods you eat. Insulin is a hormone, produced by the pancreas, that helps the glucose get into your cells to give them energy.

![Diagram of glucose and insulin interaction]

Insulin acts like a key to open the glucose channel, so the glucose gets into your cells and turns into energy.

With diabetes, there are not enough insulin keys or the insulin keys are not working right. Glucose is not able to enter the cells, so blood sugar is higher.
• With **type 1 diabetes**, your body does not make insulin.
• With **type 2 diabetes**, the more common type, your body does not make enough insulin or your body is not able to use the insulin it makes. Without enough insulin, the glucose stays in your blood.
• With **prediabetes**, your blood sugar is higher than normal, but not high enough to be called diabetes. Having prediabetes puts you at a higher risk of getting type 2 diabetes.

Over time, having too much glucose in your blood can cause serious problems. It can damage your eyes, kidneys, and nerves. Diabetes can also cause heart disease, stroke, and even the need to remove a limb. Women can also get diabetes during pregnancy, called **gestational diabetes**.

### Warning signs of diabetes

Everyone responds differently to diabetes. Some of the common warning signs are:

• Having to go to the bathroom often to pass urine.
• Feeling thirsty, even though you are drinking fluids.
• Losing weight.
• Blurry vision.
• Healing is slow for cuts or scrapes on your skin.
• Feeling tired.
• Feeling hungry.
• Being irritable or grumpy.

Often people may not notice any signs of diabetes. One in four people with diabetes doesn’t know he or she has it.

### Diagnosing diabetes

Your doctor will do a physical exam and ask you about your signs. Blood tests will be done to check for diabetes:

• An **A1C test**, also called the hemoglobin A1C, HbA1c, or glycohemoglobin test, measures blood sugar over the last 2 to 3 months. An A1C of 6.5% or higher indicates diabetes.
• A **fasting plasma glucose (FPG) test**, also called fasting blood glucose, measures blood sugar. You will need to fast, so you are not able to eat or drink anything except for water for at least 8 hours before the test. A FPG of 126 mg/dl or above on two testing occasions indicates diabetes.
• A **glucose tolerance test (GTT)** measures blood sugar. You will need to fast for at least 8 hours before the test and for 2 or 3 hours after drinking a sweet tasting orange drink. A blood sugar level of 200 mg/dl or higher indicates diabetes.
Prediabetes

If you have blood sugar levels that are higher than normal, but not high enough to be diabetes, you have prediabetes. More than 84 million adults in the U.S. have prediabetes. Without treatment, prediabetes often leads to type 2 diabetes within five years.

To prevent or delay type 2 diabetes:

• Lose weight. Losing just 5 to 10 percent of your body weight can reduce your diabetes risk.
• Eat a healthy diet that is low in fat and calories.
• Increase your physical activity. Exercise at least 30 minutes 5 days a week. Brisk walking and strength training are good activities you can do most anywhere, and they do not require much special equipment.
• See your doctor regularly for wellness check-ups.

Treating diabetes

If your blood sugar level indicates diabetes, your doctor, nurse, and dietitian will work with you to develop a plan for you. The goal of treatment is to keep your blood sugar level as near to normal as possible (80 to 130 mg/dl fasting). To do this, a balance of food, medicine, and exercise is needed.

How to manage your diabetes:

• Follow your meal plan.
• Take your insulin or other diabetes medicines as ordered.
• Exercise most days of the week, such as walking briskly for 30 minutes, 5 days a week.
• Maintain a healthy weight.
• Learn how to check and record your blood sugar levels.
• Learn how to recognize when your blood sugar level is too high or too low.
• Keep all of your appointments with your doctors, nurses, and dietitians.
• Attend diabetes education classes.

Learn as much as you can about diabetes. The more you know about your diabetes, the better you will be able to manage your blood sugar.