



DIABETES

A Guide to Diabetes



This information is provided to help you better understand your lab results. Please follow up with your primary care provider for further evaluation of any abnormal results.

WHAT IS DIABETES

Diabetes mellitus is a disease that prevents your body from properly using the energy from the food you eat. Diabetes occurs when either:

- The pancreas (an organ behind your stomach) produces little insulin or no insulin at all. (Insulin is a naturally occurring hormone produced by the beta cells of the pancreas that helps the body use sugar for energy.)
- The pancreas makes insulin, but the insulin made does not work as it should. This condition is called insulin resistance.

TWO MAIN TYPES OF DIABETES

- **Type - 1 Diabetes** - occurs because the insulin-producing cells (called beta cells) of the pancreas are damaged. People with type 1 diabetes produce little or no insulin, so sugar cannot get into the body's cells for use as energy. This causes blood sugar levels to rise. People with type 1 diabetes **MUST** use insulin injections to control their blood sugar. The damage to the insulin-producing cells in type 1 diabetes occurs over a period of years. However, the symptoms of type 1 diabetes might occur over a period of days to weeks. Type 1 is the most common form of diabetes in people younger than 20 years old, but it can occur at any age.
- **Type -2 Diabetes** - People with type 2 diabetes produce insulin. However, there is either not enough insulin or it doesn't work properly in the body. When there is not enough insulin or the insulin is not used as it should be, sugar cannot get into the body's cells for use as energy. This causes blood sugar to rise. Type 2 diabetes is most common in people over age 45 who are overweight. Some people with type 2 diabetes can manage it by controlling their weight, watching their diet, and exercising regularly. Others might also need to take an oral medicine and/or insulin injections.

PREDIABETES

Prediabetes means that your blood sugar level is higher than normal but not yet high enough to be classified as type 2 diabetes. Without intervention, prediabetes is likely to become type 2 diabetes in 10 years or less. If you have prediabetes, the long-term damage of diabetes—especially to your heart and circulatory system—may already be starting.

There's good news, however. Prediabetes can be an opportunity for you to improve your health. Progression from prediabetes to type 2 diabetes isn't inevitable. With healthy lifestyle changes—such as eating healthy foods, including physical activity in your daily routine and maintaining a healthy weight—you may be able to bring your blood sugar level back to normal.

RISK FACTORS

- Family History of Diabetes
- Race or Ethnic Background
- Being Overweight
- History of Hypertension (high blood pressure)
- Abnormal Blood Cholesterol or Triglyceride Levels
- Advancing Age
- Certain drugs that might increase blood sugar
- Years of heavy alcohol use
- Smoking
- History of gestational diabetes or delivery of a baby weighing more than 9 pounds
- History of autoimmune disease
- Being at risk for diabetes
- It is important to note that sugar itself does not cause diabetes. Eating a lot of sugar can lead to tooth decay but it does not cause diabetes.

HOW IS DIABETES DIAGNOSED?

Diabetes is diagnosed with fasting sugar blood tests or with A1c blood tests, also known as glycosylated hemoglobin tests. A fasting blood sugar test is performed after you have had nothing by mouth (eating or drinking) for at least 8 hours. Normal fasting blood sugar is less than 100 mg/dl. You do not have to be fasting for an A1c blood test.

	NORMAL	PREDIABETES	DIABETES
FASTING GLUCOSE TEST	<100	100 - 125	126 OR HIGHER
RANDOM (ANYTIME) GLUCOSE TEST	<140	140-199	200 OR HIGHER
A1C TEST	<5.6%	5.6-6.4%	6.5% OR HIGHER