Helping all people live healthy lives

Diabetes Fact Sheet

Diabetes is a chronic disease that changes the way that the body uses glucose for energy. It is characterized by high levels of blood glucose resulting from defects in insulin production, insulin action or both. Diabetes can be associated with serious complications and premature death. Given the proper knowledge, skills and support, people with diabetes can take steps to manage their blood glucose levels and reduce their risk of complications.

Key facts:

- Diabetes has no cure.
- Worldwide, more than 246 million people have diabetes, and by 2025 that number could reach 380 million people.
- Diabetes is the fifth-deadliest disease in the United States.
- 20.8 million Americans—about 7 percent of the population—have diabetes.
- The incidence of diabetes is higher among minority populations: African Americans are 1.8 times more likely to have diabetes than non-Hispanic whites and Hispanic Americans are 1.7 times more likely to have diabetes than non-Hispanic whites.
- The total annual economic cost of diabetes in 2002 was $132 billion, or one out of every 10 health care dollars spent in the United States.

There are two primary types of diabetes:

Type 1 diabetes: When the body produces little or no insulin

- Though it can occur at any age, type 1 diabetes usually develops in people before age 30
- It's often diagnosed during childhood
- Risks may include autoimmune, genetic and environmental factors
- About 5 percent to 10 percent of people with diabetes have type 1 diabetes
- *Symptoms*: Excessive hunger, thirst and urination, weight loss, nausea, vomiting, fatigue and abdominal pain
- Insulin is necessary to treat type 1 diabetes; otherwise it is fatal

Type 2 diabetes: When the body doesn't produce enough insulin and/or can't use the insulin it produces, effectively

- Usually occurs in people over 30
- It's usually associated with older age, obesity, family history of diabetes, history of gestational diabetes (which is a form of glucose intolerance diagnosed in some

women during pregnancy), impaired glucose metabolism, physical inactivity and race or ethnicity
- About 90 percent to 95 percent of people with diabetes have type 2 diabetes
- *Symptoms*: Increased urination, thirst, extreme fatigue, blurred vision and dehydration

Recently clinicians have identified *type 1.5* or latent autoimmune diabetes of adulthood (LADA), which has virtually the same underlying cause as type 1 diabetes, but it develops at a slower rate and occurs later in life.

Another form of diabetes, gestational diabetes, sometimes occurs in women during the late stages of pregnancy. With gestational diabetes, a woman's body is not able to make and use all the insulin it needs for pregnancy. Gestational diabetes occurs in about 4 percent of all pregnant women and usually goes away after pregnancy.

Treatment for all people with diabetes includes diet modification and exercise. People with type 1 diabetes must regularly inject or infuse themselves with insulin to manage their blood glucose levels. People with type 2 diabetes often take oral medications to control their blood glucose levels; some do also inject themselves with insulin.

How is diabetes diagnosed?
- Diabetes is often diagnosed when a person's blood glucose reaches an abnormally high level. (Fasting blood glucose levels should never be higher than 126 mg/dL. After eating, these levels should be no higher than 200 mg/dL.)
- Doctors may check blood glucose levels if a patient has increased hunger, thirst or urination, or frequent infections, hypertension or other critical symptoms of diabetes.

What are some complications associated with diabetes?
Diabetes can lead to serious, long-term complications, including kidney damage or failure; blindness; heart disease; stroke; high blood pressure; neuropathy; slow-healing ulcers and infections of the feet and legs; and bacterial and fungal infections, typically of the skin.

How do people with diabetes manage the disease?
Diabetes has no cure; however, people with diabetes can live healthier lives by carefully managing their disease which means keeping blood glucose levels as close to normal as possible. In fact, the Diabetes Control and Complications Trial (DCCT), conducted by the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) from 1983 to 1993, showed that keeping blood glucose levels as close to normal as possible slows the onset of complications, as well as the progression of eye, kidney and nerve

diseases. Unfortunately, keeping blood glucose levels within a target range throughout the day can be difficult; certain foods can cause levels to rise while exercise and medication—including insulin—can cause them to decline. Effective management of diabetes includes several factors:

Individualized Treatment Plans. People with diabetes should work with their doctors to create personal healthcare plans that include setting and tracking target blood glucose levels and following diet, exercise and medication—often including insulin-injection—regimens to manage blood-glucose levels and help offset complications.

Blood Glucose Monitoring. People with diabetes may test their blood glucose four or more times a day, typically before meals, snacks and bedtime, to insure that their levels are within their target range. Testing helps people with diabetes fine-tune each insulin dose based on their bodies' actual needs. Frequent testing can help identify times of day when blood glucose levels are out of range so people with diabetes can adjust their insulin therapy.

Education. Some people with type 2 diabetes require diabetes pills or insulin to help their bodies use glucose for energy. Once people with diabetes understand how and when the medication works in their body—and how that relates to their food intake and physical activity—they can make adjustments to keep their blood glucose levels within their target range, reducing their risk of diabetes complications.

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