



## Diabetes Fact Sheet

Diabetes is a chronic disease that changes the way the body uses glucose for energy. It is characterized by high levels of blood glucose resulting from defects in insulin production. 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<sup>1</sup>
- Diabetes currently affects 285 million people worldwide and is expected to affect 438 million by 2030<sup>2</sup>
- An estimated 23.6 million children and adults in the United States<sup>1</sup> have diabetes
- Diabetes is the seventh leading cause of death in the United States<sup>1</sup>
- Diabetes is more common among older Americans and non-Hispanic African Americans
- The total annual costs of diabetes in the U.S. amount to an estimated \$174 billion, including \$116 billion in direct medical costs and \$58 billion in indirect costs<sup>1</sup>

### There are two primary types of diabetes:<sup>3</sup>

**Type 1 diabetes:** When the body does not produce insulin<sup>3</sup>

- Type 1 diabetes usually develops in children or young adults but can occur at any age
- About 5 to 10 percent of people with diabetes have type 1 diabetes
- Insulin is necessary to treat type 1 diabetes

**Type 2 diabetes:** When the body doesn't produce enough insulin and/or the cells ignore the insulin

- Usually occurs in people over 40; however, it can develop at any age and is now being seen in children
- Usually associated with older age, obesity, family history of diabetes, history of gestational diabetes, impaired glucose metabolism, physical inactivity, and race or ethnicity
- About 90 to 95 percent of people with diabetes have type 2 diabetes

Recently, clinicians have identified type 1.5 diabetes, 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.<sup>1</sup>

Another form of diabetes, gestational diabetes, sometimes occurs in women during the late stages of pregnancy. Gestational diabetes occurs in about 4 percent of all pregnant women and usually goes away after pregnancy.<sup>1</sup>

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 also inject themselves with insulin. Among adults with diagnosed diabetes (type 1 or type 2), 14 percent take insulin only, 13 percent take both insulin and oral medication, 57 percent take oral medication only, and 16 percent do not take either insulin or oral medication.<sup>1</sup>

### **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, and amputations.

### **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.<sup>1</sup> The United Kingdom Prospective Diabetes Study (UKPDS) demonstrated that the adoption of insulin therapy in early phases of the disease is capable of preserving beta cell function; beta cells are responsible for the secretion of insulin.<sup>4</sup>

### **Effective management of diabetes includes several factors:**

***Individualized Treatment Plan*** - 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 ensure 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.

###

---

<sup>1</sup> Centers for Disease Control and Prevention. National diabetes fact sheet: general information and national estimates on diabetes in the United States, 2007. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2008. [http://www.cdc.gov/diabetes/pubs/pdf/ndfs\\_2007.pdf](http://www.cdc.gov/diabetes/pubs/pdf/ndfs_2007.pdf)

<sup>2</sup> International Diabetes Federation. Atlas. <http://www.diabetesatlas.org/content/some-285-million-people-worldwide-will-live-diabetes-2010>

<sup>3</sup> American Diabetes Association. Diabetes Basics. <http://www.diabetes.org/diabetes-basics/>

<sup>4</sup> UK Prospective Diabetes Study (UKPDS) Group. Intensive blood-glucose control with sulphonylureas or insulin compared with conventional treatment and risk of complications in patients with type 2 diabetes (UKPDS33) *Lancet* 1998;352(9131):837-853