

# DIABETES FACTS

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## *Complications of diabetes in the United States*

Diabetes is associated with an increased risk for a number of serious, sometimes life-threatening complications and certain populations experience an even greater threat. Good diabetes control can help reduce your risk, however many people are not even aware that they have diabetes until they develop one of its complications.

### **Heart disease and stroke**

- Heart disease and stroke account for about 65% of deaths in people with diabetes.
- Adults with diabetes have heart disease death rates about 2 to 4 times higher than adults without diabetes.
- The risk for stroke is 2 to 4 times higher and the risk of death from stroke is 2.8 times higher among people with diabetes.

In women with diabetes, deaths from heart disease have *increased* 23 percent over the past 30 years compared to a 27 percent *decrease* in women without diabetes. Deaths from heart disease in men with diabetes have decreased by *only* 13 percent compared to a 36 percent decrease in men without diabetes.

### **High blood pressure**

- About 73% of adults with diabetes have blood pressure greater than or equal to 130/80 millimeters of mercury (mm Hg) or use prescription medications for hypertension.

### **Blindness**

- Diabetic retinopathy causes 12,000 to 24,000 new cases of blindness each year making diabetes the leading cause of new cases of blindness in adults 20-74 years of age.
- In people with type 1 diabetes, therapy that keeps blood sugar levels as close to normal as possible reduces damage to the eyes by 76% (*New England Journal of Medicine*, September 30, 1993). Experts believe that these results can also be applied to those with type 2 diabetes.

Mexican Americans are almost twice as likely and non-Hispanic blacks are almost 50% as likely to develop diabetic retinopathy as non-Hispanic whites.

### **Kidney disease**

- Diabetes is the leading cause of kidney failure, accounting for 44% of new cases in 2002.
- In 2002, 44,400 people with diabetes began treatment for end-stage renal disease (ESRD).
- In 2002, a total of 153,730 people with ESRD due to diabetes were living on chronic dialysis or with a kidney transplant.
- In people with type 1 diabetes, therapy that keeps blood sugar levels as close to normal as possible reduces damage to the kidneys by 35% to 56% (*New England Journal of Medicine*, September 30, 1993). Experts believe that these results can also be applied to those with type 2 diabetes.

Non-Hispanic blacks are 2.6 to 5.6 times as likely to suffer from kidney disease with more than 4,000 new cases of ESRD each year. Mexican Americans are 4.5 to 6.6 times more likely and American Indians are 6 times more likely to suffer from kidney disease.

## **Nervous system disease**

- About 60% to 70% of people with diabetes have mild to severe forms of nervous system damage. The results of such damage include impaired sensation or pain in the feet or hands, slowed digestion of food in the stomach, carpal tunnel syndrome, and other nerve problems.
- Almost 30% of people with diabetes aged 40 years or older have impaired sensation in the feet (i.e., at least one area that lacks feeling).
- Severe forms of diabetic nerve disease are a major contributing cause of lower-extremity amputations.

## **Amputations**

- More than 60% of nontraumatic lower-limb amputations occur in people with diabetes.
- In 2002, about 82,000 nontraumatic lower-limb amputations were performed in people with diabetes.
- The rate of amputation for people with diabetes is 10 times higher than for people without diabetes.

Mexican Americans are 1.8 times as likely, non-Hispanic Blacks are 2.7 times as likely, and American Indians are 3 to 4 times as likely to suffer from lower-limb amputations.

Amputation rates are 1.4 to 2.7 times higher in men than women with diabetes.

## **Dental disease**

- Periodontal (gum) disease is more common in people with diabetes. Among young adults, those with diabetes have about twice the risk of those without diabetes.
- Almost one-third of people with diabetes have severe periodontal disease with loss of attachment of the gums to the teeth measuring 5 millimeters or more.

## **Complications of pregnancy**

- Poorly controlled diabetes before conception and during the first trimester of pregnancy can cause major birth defects in 5% to 10% of pregnancies and spontaneous abortions in 15% to 20% of pregnancies.
- Poorly controlled diabetes during the second and third trimesters of pregnancy can result in excessively large babies, posing a risk to both mother and child.

## **Sexual Dysfunction**

- Men with diabetes are 2 times as likely to experience erectile dysfunction as men without diabetes.
- Women with type 1 diabetes are twice as likely to experience prevalence of sexual dysfunction compared with women without diabetes.

## **Other complications**

- Uncontrolled diabetes often leads to biochemical imbalances that can cause acute life-threatening events, such as diabetic ketoacidosis and hyperosmolar (nonketotic) coma
- People with diabetes are more susceptible to many other illnesses and, once they acquire these illnesses, often have worse prognoses. For example, they are more likely to die with pneumonia or influenza than people who do not have diabetes.

## ***Preventing diabetes complications***

Diabetes can affect many parts of the body and can lead to serious complications such as heart disease, blindness, kidney damage, and lower-limb amputations. Working together, people with diabetes and their health care providers can reduce the occurrence of these and other diabetes complications by controlling the levels of blood glucose, blood pressure, and blood lipids, and by receiving other preventive care practices in a timely manner.

### **Glucose control**

- Studies in the United States and abroad have found that improved glycemic control benefits people with either type 1 or type 2 diabetes. In general, every percentage point drop in A1C blood test results (e.g., from 8.0% to 7.0%) reduces the risk of microvascular complications (eye, kidney, and nerve diseases) by 40%.

### **Blood pressure control**

- Blood pressure control reduces the risk of cardiovascular disease (heart disease or stroke) among persons with diabetes by 33% to 50%, and the risk of microvascular complications (eye, kidney, and nerve diseases) by approximately 33%.
- In general, for every 10 mm Hg reduction in systolic blood pressure, the risk for any complication related to diabetes is reduced by 12%.

### **Control of blood lipids**

- Improved control of cholesterol or blood lipids (for example, HDL, LDL, and triglycerides) can reduce cardiovascular complications by 20% to 50%.

### **Preventive care practices for eyes, kidneys, and feet**

- Detecting and treating diabetic eye disease with laser therapy can reduce the development of severe vision loss by an estimated 50% to 60%.
- Comprehensive foot care programs can reduce amputation rates by 45% to 85%.
- Detecting and treating early diabetic kidney disease by lowering blood pressure can reduce the decline in kidney function by 30% to 70%. Treatment with ACE inhibitors and angiotensin receptor blockers (ARBs) are more effective in reducing the decline in kidney function than other blood pressure lowering drugs.

**For more information in English or Spanish, contact the American Diabetes Association at 1-800-DIABETES (1-800-342-2383), or visit our Web site at [diabetes.org](http://diabetes.org)**