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## VITAL STATISTICS OF DIABETES 2007 & 2011

25.8 million children and adults (8.3% of the U.S. population) have diabetes. 18.8 million are diagnosed, 7.0 million are undiagnosed\* and 79 million have pre-diabetes.\* 1.9 million new cases were diagnosed in 2010 (ages 20 or older).

Diabetes is the seventh leading cause of death in the U.S.

Diabetes is the leading cause of kidney failure, adult blindness, nontraumatic lower-extremity amputation, and impotence. Heart disease and stroke are two to four times more common in people with diabetes.

Evidence has shown that the risk of complications of diabetes can be greatly reduced when people with diabetes control their blood glucose, blood pressure and weight, reduce lipid abnormalities, exercise regularly, and stop cigarette smoking.

The total annual economic cost of diabetes in 2007 was estimated to be \$174 billion. Medical expenditures totaled \$116 billion and were comprised of \$27 billion for diabetes care, \$58 billion for indirect cost of diabetes (disability, work loss, premature mortality) and \$31 billion for excess general medical costs.

\*The 2011 statistics use both fasting glucose and A1C levels to derive estimates for undiagnosed diabetes and pre-diabetes.

## WHAT IS DIABETES?

Diabetes is a chronic disease in which the body either does not make or does not properly use insulin. Insulin is a naturally occurring hormone released by the pancreas.

When insulin is absent or ineffective, the level of sugar (or glucose) in the blood rises. Abnormally high levels of blood glucose are related to heart disease, obesity, blindness, kidney failure, and nerve disease. Therefore, it is vital for you to have glucose levels as normal as possible.

The body makes glucose to fuel your brain and body tissues from the food you eat, mostly from the carbohydrate in foods. Digested carbohydrate enters the bloodstream as glucose. Insulin allows glucose to leave the blood and enter body tissues. Without the action of insulin, glucose levels remain high. Diabetes is diagnosed by high blood glucose levels.

### What Causes Diabetes?

Type 1 diabetes is caused by the destruction of the body's insulin-producing cells called *beta cells*.

Type 2 diabetes has several causes. Heredity, age, and weight are involved. Many people with type 2 diabetes make enough insulin but are not able to use it properly.

## WHAT IS DIABETES?

### **The Risk of Getting Type 1 Diabetes Is Greater than Normal If You...**

- Have a sibling with type 1 diabetes (10%)
- Have a parent with type 1 diabetes (3–7%)

### **The Risk of Getting Type 2 Diabetes Is Greater than Normal If You...**

- Have pre-diabetes (See cards 14–16).
- Are 45 years old or older
- Have a family history of diabetes
- Are overweight
- Do not exercise regularly
- Have high LDL cholesterol (>100 mg/dl), low HDL cholesterol (<45mg/dl in men and <55 mg/dl in women) or high triglycerides (>150 mg/dl) or high blood pressure (>130/80)
- Are of certain ethnic groups: African American, Hispanic/Latino, Asian & Pacific Islander, and Native American
- Are a woman who had gestational diabetes, a form of diabetes that occurs during pregnancy, or had a baby weighing 9 pounds or more at birth (See cards 12–13).

## BASIC TYPES OF DIABETES

### **Type 1 Diabetes**

diabetes that requires daily insulin (injected or inhaled) for life

### **Type 2 Diabetes**

diabetes that can often be controlled by losing weight, improving nutrition, and exercising regularly, but may require oral medications and/or insulin

### **Other Specific Types**

diabetes due to damage, diseases, or genetic defects that impair the pancreas

### **Gestational Diabetes Mellitus (GDM)**

diabetes that develops during pregnancy due to temporary insulin resistance

### **Pre-Diabetes**

a condition diagnosed when blood glucose levels are higher than normal ( $\geq 100$  mg/dl fasting) but not high enough for a diagnosis of diabetes ( $\geq 126$  mg/dl fasting or  $\geq 200$  mg/dl at some random time)

## TYPE 1 DIABETES

### Insulin Dependent

- Type 1 diabetes develops when the body's immune system destroys pancreatic beta cells.
- Beta cells are the only cells that make the hormone insulin, the primary regulator of blood glucose levels.
- Onset can occur at any age, but commonly before age 30.
- Approximately 5–10% of people diagnosed with diabetes have type 1.

### Symptoms (Physical Signs)

- Frequent urination
- Extreme hunger and thirst
- Weight loss
- Weakness and tiredness
- Vomiting and irregular breathing
- Headache or stomach ache

## GET THE CARE YOU NEED

### Every year:

- Have a dilated eye exam
- Have urine checked for microalbumin (protein)
- Have your blood cholesterol and triglyceride levels checked
- Have your ability to feel sensation in your feet checked
- Have a diabetes educator watch your blood glucose testing technique

### Every 3 months, visit your doctor:

- Have your A1C level checked
- Have your blood pressure checked
- Have your general health assessed
- Have your feet examined
- Discuss any problems you are having

### Every day:

- Get at least 30 minutes of physical activity, like a brisk walk
- Make healthy food choices
- **Don't smoke**
- Take a low-dose aspirin (~80 mg) when recommended by your doctor.
- Remember your decision to live a healthy life with diabetes

## GET THE CARE YOU NEED

### Talk to Your Doctor

- Work with your doctor to develop a treatment plan that works for you. You will have to manage your diabetes every day.
- You and your doctor should evaluate your progress in meeting treatment goals.
- If you are not meeting treatment goals, evaluate both the goals and treatment plan. It is vital to have goals you can live with.
- If you take insulin, ask about the benefits of multiple daily insulin injections. Also, ask for guidelines for adjusting insulin dose or giving extra doses for specific circumstances.
- Ask to be referred to a diabetes educator to learn how to manage your diabetes every day.
- If you have type 2 diabetes and your doctor suggests insulin to help you reach your glucose targets, try it. It could save your life.
- Before visiting your doctor, write down your questions and concerns. Discuss any problems that have come up.
- Keep records of your food, exercise, medications, and blood glucose checks. Share these with your doctor and diabetes educator at each visit.