

# The Truth About Diabetes

It is very important for people who think they might have diabetes to visit a personal health care practitioner. The following simplified questions and answers can't take the place of a personal consultation



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Fact Sheet: National estimates and general information on diabetes in the United States (Centers for Disease Control and Prevention. Atlanta, GA: US Department of Health and Human Services, 1997):

Diabetes knowledge, treatment, and prevention strategies advance daily. Treatment is aimed at keeping blood glucose near normal levels at all times. Training in self-management is integral to the treatment of diabetes. Treatment must be individualized and must address medical, psychosocial, and lifestyle issues.

Treatment of type 1 diabetes: Lack of insulin production by the pancreas makes type 1 diabetes particularly difficult to control. Treatment requires a strict regimen that typically includes a carefully calculated diet, planned physical activity, home blood glucose testing several times a day, and multiple daily insulin injections.

Treatment of type 2 diabetes: Treatment typically includes diet control, exercise, home blood glucose testing, and in some cases, oral medication and/or insulin. Approximately 40% of people with type 2 diabetes require insulin injections.

#### CAN DIABETES BE PREVENTED?

A number of studies have shown that regular physical activity can significantly reduce the risk of developing type 2 diabetes. It also appears to be associated with obesity. Researchers are making progress in identifying the exact genetics and "triggers" that predispose some individuals to develop type 1 diabetes, but prevention, as well as a cure, remains elusive.

#### IS THERE A CURE FOR DIABETES?

The diabetes community has three choices: prevent diabetes; cure diabetes; and take better care of people with diabetes to prevent devastating complications. All three approaches are actively being pursued by the US Department of Health and Human Services.

Both the National Institutes of Health (NIH) and the Centers for Disease Control and Prevention (CDC) are involved in prevention activities. The NIH is involved in research to cure both type 1 and type 2 diabetes, especially type 1. CDC focuses most of its programs on being sure that the proven science is put into daily practice. The basic idea is that if all the important research and science are not made meaningful in the daily lives of people with diabetes, then the research is, in essence, wasted. Several approaches to "cure" diabetes are being pursued: Pancreas transplantation Islet cell transplantation (islet cells produce insulin) Artificial pancreas development Genetic manipulation (fat or muscle cells that don't normally make insulin have a human insulin gene inserted — then these "pseudo" islet cells are transplanted into people with type 1 diabetes).

Each of these approaches still has a lot of challenges, such as preventing immune rejection; finding an adequate number of insulin cells; keeping cells alive; and others. But progress is being made in all areas.

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**Diabetes can cause serious health complications including heart disease, blindness, kidney failure, and lower-extremity amputations. Diabetes is the seventh leading cause of death in the United States**

**W**hat is diabetes? Most of the food we eat is turned into glucose, or sugar, for our bodies to use for energy. The pancreas, an organ that lies near the stomach, makes a hormone called insulin to help glucose get into the cells of our bodies. When you have diabetes, your body either doesn't make enough insulin or can't use its own insulin as well as it should. This causes sugars to build up in your blood.

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#### WHAT ARE THE SYMPTOMS OF DIABETES?

People who think they might have diabetes must visit a physician for diagnosis. They might have SOME or NONE of the following symptoms:

- Frequent urination
- Excessive thirst
- Unexplained weight loss

- Extreme hunger
- Sudden vision changes
- Tingling or numbness in hands or feet
- Feeling very tired much of the time
- Very dry skin
- Sores that are slow to heal
- More infections than usual.

Nausea, vomiting, or stomach pains may accompany some of these symptoms in the abrupt onset of insulin-dependent diabetes, now called type 1 diabetes.

#### WHAT ARE THE TYPES AND RISK FACTORS OF DIABETES?

The following types of diabetes and some of their risk factors are quoted from the National Diabetes Fact Sheet: National estimates and general information on diabetes in the United States (Centers for Disease Control and Prevention. Atlanta, GA: US Department of Health and Human Services, 1997):

Type 1 diabetes was previously called insulin-dependent diabetes mellitus (IDDM) or juvenile-onset diabetes. Type 1 diabetes may account for 5% to 10% of all

diagnosed cases of diabetes. Risk factors are less well defined for type 1 diabetes than for type 2 diabetes, but autoimmune, genetic, and environmental factors are involved in the development of this type of diabetes.

Type 2 diabetes was previously called non-insulin-dependent diabetes mellitus (NIDDM) or adult-onset diabetes. Type 2 diabetes may account for about 90% to 95% of all diagnosed cases of diabetes. Risk factors for type 2 diabetes include older age, obesity, family history of diabetes, prior history of gestational diabetes, impaired glucose tolerance, physical inactivity, and race/ethnicity. African Americans, Hispanic/Latino Americans, American Indians, and some Asian Americans and Pacific Islanders are at particularly high risk for type 2 diabetes.

#### WHAT IS THE TREATMENT FOR DIABETES?

Management strategies should be planned along with a qualified health care team.

The following information on treatments for diabetes is from the National Diabetes