

# Facts

## **Type 1 Diabetes**

#### **About T1D**

Type 1 diabetes (T1D) is an autoimmune disease in which a person's pancreas stops producing insulin, a hormone that enables people to get energy from food. It occurs when the body's immune system attacks and destroys the insulin-producing cells in the pancreas, called beta cells. While its causes are not yet entirely understood, scientists believe that both genetic factors and environmental triggers are involved. Its onset has nothing to do with diet or lifestyle. There is nothing you can do to prevent T1D, and—at present—nothing you can do to get rid of it.

#### Affects Children and Adults

Type 1 diabetes strikes both children and adults at any age. It comes on suddenly, causes dependence on injected or pumped insulin for life, and carries the constant threat of devastating complications.

## **Needs Constant Attention**

Living with T1D is a constant challenge. People with the disease must carefully balance insulin doses (either by injections multiple times a day or continuous infusion through a pump) with eating and daily activities throughout the day and night. They must also test their blood sugar by pricking their fingers for blood six or more times a day. Despite this constant attention, people with T1D still run the risk of dangerous high or low blood sugar levels, both of which can be life-threatening. People with T1D overcome these challenges on a daily basis.

## **Not Cured By Insulin**

While insulin injections or infusion allow a person with T1D to stay alive, they do not cure the disease, nor do they necessarily prevent the possibility of the disease's serious effects, which may include: kidney failure, blindness, nerve damage, amputations, heart attack, stroke, and pregnancy complications.

## **Perseverance and Hope**

Although type 1 diabetes is a serious and difficult disease, treatment options are improving all the time, and people with T1D can lead full and active lives. JDRF is driving research to improve the technology people with T1D use to monitor blood sugar levels and deliver the proper doses of insulin, as well as research that will ultimately deliver a cure.

#### **Statistics**

- As many as three million Americans may have type 1 diabetes.<sup>1</sup>
- Each year, more than 15,000 children and 15,000 adults—approximately 80 people per day—are diagnosed with type 1 diabetes in the U.S.<sup>2</sup>
- 85 percent of people living with type 1 diabetes are adults.<sup>3</sup>
- The rate of type 1 diabetes incidence among children under the age of 14 is estimated to increase by 3% annually worldwide.<sup>4</sup>

1 Type 1 Diabetes, 2010; Prime Group for JDRF, Mar. 2011

 $2\ \ \text{NIDDK: http://diabetes.niddk.nih.gov/dm/pubs/statistics/index.htm\#i\_youngpeople}$ 

3 Type 1 Diabetes, 2010; Prime Group for JDRF, Mar. 2011

4 IDF: http://www.idf.org/diabetesatlas/diabetes-young-global-perspective

## **Warning Signs**

Warning signs of T1D may occur suddenly and include:

- Extreme thirst
- Frequent urination
- Drowsiness or lethargy
- Increased appetite
- · Sudden weight loss
- Sudden vision changes
- · Sugar in the urine
- Fruity odor on the breath
- Heavy or labored breathing
- Stupor or unconsciousness

#### What is it Like to Have T1D?

Ask people who have type 1 diabetes, and they will tell you: It's difficult. It's upsetting. It's life-threatening. It never goes away. But, at the same time, people with T1D serve as an inspiration by facing the disease's challenges with courage and perseverance and don't let it stand in the way of achieving their goals.

"Both children and adults like me who live with type 1 diabetes(T1D) need to be mathematicians, physicians, personal trainers, and dieticians all rolled into one. We need to be constantly factoring and adjusting, making frequent finger sticks to check blood sugars, and giving ourselves multiple daily insulin injections just to stay alive."

 JDRF International Chairman Mary Tyler Moore

"It is a 24/7/365 job. We never get to relax and forget about food, whether we've exercised too much or too little, insulin injections, blood sugar testing, or the impact of stress, a cold, a sunburn, and on and on. So many things make each day a risky venture when you live with TID."

Mary Vonnegut, adult,
Rhode Island

"Unlike other kids, I have to check my blood sugar 8 to 10 times a day; everything I eat is measured and every carbohydrate counted. My kit goes with me everywhere I go.... Too much exercise or not eating all my food can be dangerous. I think I'm too young to have to worry about all this stuff."

— Jonathan Platt, 8, California

"It controls your life in ways that someone without it doesn't even see. For me, the worst part of living with TID is the fear that my three children or their children might develop the disease."

— Nicky Hider, adult, New York