

# Fact Sheet

## 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

T1D 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 T1D 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

- More than 300,000 Canadians live with T1D.<sup>1</sup>
- The rate of T1D incidence among children under the age of 14 is estimated to increase by three per cent annually worldwide.<sup>2</sup>
- The life expectancy for people with T1D may be shortened by as much as 15 years.<sup>3</sup>

*"Both children and adults like me who live with type 1 diabetes 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

### 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<sup>4</sup>

### What is it Like to Have T1D?

Ask people who have T1D, 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.

<sup>1</sup> Canadian Diabetes Association. The prevalence and costs of diabetes. December 2009.

<sup>2</sup> IDF: <http://www.idf.org/diabetesatlas/diabetes-young-global-perspective>.

<sup>3</sup> Canadian Diabetes Association. An economic tsunami: the cost of diabetes in Canada. December 2009.

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