



## LIVING WITH DIABETES

Living with diabetes involves working with health care providers to monitor and manage blood glucose levels. This should be paired with healthy lifestyle choices, including a healthy diet and physical activity. For all types of diabetes, education is an important part of medical care. Learning about diabetes helps ensure that people with this condition have the skills, knowledge and resources needed to help them manage their condition.

### ***Type 1 Diabetes***

Type 1 diabetes is different from type 2 diabetes, and cannot currently be prevented. People with type 1 diabetes must take multiple insulin injections daily or continually infuse insulin through a pump as well as test their blood glucose (sugar) three or more times per day. Managing type 1 diabetes means living a very structured life. Trying to balance insulin doses with food intake and daily activities can be difficult and people with type 1 diabetes should always be prepared for serious hypoglycaemic (low blood glucose) and hyperglycaemic (high blood glucose) reactions, both of which can be dangerous.

While living with type 1 diabetes does require a certain amount of daily structure, newer pumps and insulin products have provided more flexibility. However, these products only assist in maintaining health; they do not cure diabetes.

### ***Type 2 Diabetes***

The risk of developing type 2 diabetes can be greatly reduced through lifestyle choices. People can minimize the risk of diabetes by losing excess weight, managing diet and exercising.

People with type 2 diabetes may be able to manage blood glucose by maintaining a healthy weight, following a healthy meal plan and incorporating physical activity into daily routines. If the recommended blood glucose targets are not achieved through lifestyle changes, people with type 2 diabetes may be prescribed oral medications and/or insulin to help maintain target glucose levels.

### ***Gestational Diabetes***

Women with gestational diabetes can, in most cases, keep blood glucose levels within an acceptable range through healthy eating and regular exercise. If blood glucose levels are not successfully managed after at least two weeks of healthy eating and exercising regularly, a woman with gestational diabetes will need insulin injections.

## **Common Complications of Diabetes**

A person living with diabetes has an increased risk of other health problems. Some of the common complications are listed below:

### ***Cardiovascular disease***

- Increased risk of developing high blood pressure and other cardiovascular problems, as diabetes adversely affects the arteries, predisposing them to atherosclerosis (hardening of the arteries). Atherosclerosis can cause high blood pressure, which if not treated, can lead to blood vessel damage, stroke, heart failure, heart attack or kidney failure.

- People living with diabetes may also need to take medications to manage cholesterol (lipids) and blood pressure because of increased risk of cardiovascular disease.
- Heart disease and stroke account for about 2 out of 3 deaths in people with diabetes.

### ***Kidney disease***

- Diabetes is the leading cause of end-stage renal (kidney) failure, accounting for 35% of new kidney failure cases in 2006.
- In 2006, 2,392 patients with diabetes began treatment for end-stage renal disease.
- In 2006, 8,619 people with end-stage renal disease due to diabetes were undergoing dialysis or had a kidney transplant.

### ***Blindness and vision loss***

- Diabetic retinopathy is the leading cause of vision loss in Canadians under 50.
- Nearly all people with type 1 diabetes and 60% of those with type 2 develop some form of diabetic retinopathy during the first 20 years they have the disease.
- Over 100,000 people have a vision threatening form of diabetic retinopathy. This number is increasing by over 2500 people per year.

### ***Mental health and depression***

- Depressive symptoms are more common in people with diabetes.
- Major depressive disorder is present in approximately 15% of patients with diabetes.

### ***Lower-limb amputations***

- A person with diabetes is 15 times more likely to undergo a lower-limb amputation than a person who does not suffer from diabetes.
- At highest risk are those over age 40, who smoke and whose diabetes diagnosis dates back at least 10 years.
- Diabetes affects the circulation and immune systems, which in turn impairs the body's ability to heal itself. Over time, diabetes can damage sensory nerves, especially in the hands and feet. As a result, people with diabetes are less likely to feel a foot injury, such as a blister or cut. Unnoticed and untreated, even small foot injuries can quickly become infected, potentially leading to serious complications.

### ***Other complications***

People with diabetes are more susceptible to many other illnesses. For example, they are more likely to die of pneumonia or influenza than people who do not have diabetes.

## **Reducing the Risk of Complications**

Working with health care providers will help to reduce the occurrence of most complications, including those mentioned above, by controlling blood glucose levels, blood pressure and blood lipids. A health care provider can also ensure that additional preventive care treatments and advice are received in a timely manner.

### ***People living with diabetes can reduce the risk of complications by:***

- Not smoking;
- Being physically active in accordance with Canada's Physical Activity Guide to Healthy Active Living ([www.phac-aspc.gc.ca/pau-uap/paguide](http://www.phac-aspc.gc.ca/pau-uap/paguide));
- Eating a healthy, balanced diet in accordance with Canada's Food Guide ([www.hc-sc.gc.ca](http://www.hc-sc.gc.ca));
- Monitoring blood glucose levels with daily testing and an A1C blood test every three months;
- Maintaining a healthy cholesterol level;
- Controlling blood pressure;
- Taking care of feet by examining toes and skin every day;

- Having an eye examination once a year by an eye specialist, or more often if eye disease is present; and
- Having a kidney function test every 12 months.

### **Finding Additional Information and Support**

For general help and support about types 1, 2 and gestational diabetes in your province, please visit the Canadian Diabetes Association ([www.diabetes.ca](http://www.diabetes.ca)) or Diabète Québec ([www.diabete.qc.ca](http://www.diabete.qc.ca)).

For information specific to type 1 diabetes, please visit the Juvenile Diabetes Research Foundation ([www.jdrf.ca](http://www.jdrf.ca)).

For information about renal or kidney-related diseases and complications, please visit the Kidney Foundation of Canada ([www.kidney.ca](http://www.kidney.ca)).

For information about blindness or vision-related diseases and complications, please visit CNIB ([www.cnib.ca](http://www.cnib.ca)).

For information about research on diabetes, obesity, nutrition and metabolic disorders, please visit the Canadian Institutes of Health Research – Institute of Nutrition, Metabolism and Diabetes ([www.cihr.ca](http://www.cihr.ca)).

For information on the Canadian Diabetes Strategy, please visit the Public Health Agency of Canada ([www.diabetes.gc.ca](http://www.diabetes.gc.ca)).

For information on the Aboriginal Diabetes Initiative, please visit Health Canada (<http://www.hc-sc.gc.ca/fniah-spnia/diseases-maladies/diabete/index-eng.php>).

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