

Diabetes

What is Diabetes?

Source: Diabetes Canada

Diabetes is a chronic disease in which the body either cannot produce insulin or cannot properly use the insulin it produces. Insulin is a hormone that controls the amount of glucose (sugar) in the blood. Diabetes leads to high blood sugar levels, which can damage organs, blood vessels and nerves. The body needs insulin to use sugar as an energy source.

Types of Diabetes

What is prediabetes?

It is estimated that more than 6 million people have prediabetes.

Prediabetes refers to blood glucose (sugar) levels that are higher than normal, but not yet high enough to be diagnosed as type 2 diabetes. Although not everyone with prediabetes will develop type 2 diabetes, many people will.

It is important to know if you have prediabetes, because research has shown that some long-term complications associated with diabetes—such as heart disease—may begin during prediabetes.

What is type 1 diabetes?

Type 1 diabetes occurs when the immune system mistakenly attacks and kills the beta cells of the pancreas. No, or very little, insulin is released into the body. As a result, sugar builds up in the blood instead of being used as energy. About 10 per cent of people with diabetes have type 1 diabetes. Type 1 diabetes generally develops in childhood or adolescence, but can develop in adulthood.

Type 1 diabetes is always treated with insulin. Meal planning also helps with keeping blood sugar at the right levels.

What is type 2 diabetes?

Type 2 diabetes occurs when the body can't properly use the insulin that is released (called insulin insensitivity) or does not make enough insulin. As a result, sugar builds up in the blood instead of being used as energy. About 90 per cent of people with diabetes have type 2 diabetes. Type 2 diabetes more often develops in adults, but children can be affected.

Depending on the severity of type 2 diabetes, it may be managed through physical activity and meal planning, or may also require medications and/or insulin to control blood sugar more effectively.

What is gestational diabetes?

A third type of diabetes, gestational diabetes, is a temporary condition that occurs during pregnancy. Between three to 20 per cent of pregnant women develop gestational diabetes, depending on their risk factors. Having gestational diabetes may increase the risk of developing diabetes for both mother and child.

What is the pancreas and what does it do?

The pancreas is an organ located behind the stomach, which releases hormones into the digestive system. In a healthy body, when blood sugar levels get too high, certain cells in the pancreas (called beta cells) release insulin. Insulin is a hormone and it causes cells to take in sugar to use as energy or to store as fat. This causes blood sugar levels to decrease.

What are the complications of diabetes?

Having high blood sugar can cause diabetes-related complications, like chronic kidney disease, foot problems, non-traumatic lower limb (leg, foot, toe, etc.) amputation, eye disease (retinopathy) that can lead to blindness, heart attack, stroke, anxiety, nerve damage, and erectile dysfunction (men). Diabetes-related complications can be very serious and even life-threatening. Properly managing blood sugar levels reduces the risk of developing these complications.

Please see for more details: <https://www.diabetes.ca/managing-my-diabetes/preventing-complications>

What are the risk factors for type 2 diabetes?

You are at higher risk for diabetes if you:

- Are a member of a high risk ethnic group (including being Indigenous)
- Have family members with diabetes
- Are 40 years of age or older
- Are overweight or obese
- Have low physical activity
- Have high blood pressure
- Have high cholesterol
- Had gestational diabetes
- A smoker

Don't ignore these risk factors. If you think you might be at risk for developing diabetes, complete the Canadian Diabetes Risk Questionnaire (CANRISK).

Diabetes & Indigenous Peoples

There are steps that Indigenous people can take to prevent and manage diabetes. These begin with making intentional lifestyle choices:

Traditionally, Indigenous people lead active lifestyles and maintained a healthy diet. Today, however, as lifestyles have changed dramatically, people tend to spend less time being active. Similarly, less thought is dedicated to the kind of foods that we put into our bodies. This is one reason why indigenous people have a much higher risk of diabetes compared to other Canadians.

See below a resource called Just the Basics in Ojibwe, Plains Cree, Inuktitut and Inuinnaqtun to help Indigenous people make healthy choices.

- Just the Basics for Indigenous – English
- Just the Basics for Indigenous – Inuktitut
- Just the Basics for Indigenous – Ojibwe
- Just the Basics for Indigenous – Inuinnaqtun
- Just the Basics for Indigenous - Plains Cree

Indigenous Video Resources

Many Indigenous people can speak their native languages but are not as familiar with the written language. To help facilitate understanding, Diabetes Canada has created some oral videos of the printed Indigenous languages of Just the Basics.

Healthy Eating for Diabetes Prevention and Management in Indigenous Populations

One of the best things that Aboriginal people can do to prevent and manage diabetes is to eat well. Healthy eating means choosing the following:

- Country foods such as moose, caribou, deer, and fish;
- Lots of fruits and vegetables;
- Whole-grain varieties of bannock, bread, cereal and pasta; and
- Portion sizes that will help you reach or maintain a healthy body weight.

Healthy eating also means limiting fatty foods and those high in salt and sugar. These include many “convenience” and snack foods such as potato chips, cookies, candy and “fast food.”

Other healthy choices include baking, boiling, broiling or barbequing your food, rather than frying it, and drinking more water. By making a few positive changes in your diet, you will be well on your way to a healthier lifestyle.

Physical Activity for Diabetes Prevention and Management in Indigenous Populations

Another important choice to make in preventing and managing diabetes is to keep active. Today, many Indigenous people do not get the same amount of activity as their ancestors did. Some smart choices that can lead to a more active lifestyle are:

- Finding ways to keep active with your family – walking, gathering berries, fishing and hunting;
- Leaving the car at home more often and walking or biking to the store or to school; and
- Trying new activities – dancing, riding a bike, jogging or hiking.