

WARNING

If your glucose level is elevated (Ex.: ≥ 14 mmol/L) or you are feeling unwell, please contact your primary provide for an urgent assessment.

Diabetes is a complex disease and comprises many types of “diabetes”. The two main types are [Type 1 Diabetes Mellitus](#) and [Type 2 Diabetes Mellitus](#). If you have been diagnosed with diabetes mellitus type 2, this information applies to you. For more information on all the types of diabetes, please visit [Diabetes Canada](#).

What is it?

In Diabetes Mellitus, a sugar called [glucose](#) is present at abnormal high levels in your blood. All the cells in your body use glucose as the source of energy to power its operations. They need to let glucose in to work normally and glucose should not stay in the blood. It enters within the cell with the help of [insulin](#), a hormone naturally produced by your body. In other words, **Insulin** acts as the “key to the door” that allows glucose to get in a cell. When glucose is unable to enter your cells, it accumulates in the blood.

In type 1 Diabetes Mellitus, the [pancreas](#) does not make enough insulin.

In type 2 Diabetes Mellitus, your body no longer responds to insulin properly. For some people, as the disease evolves, the pancreas stops making enough insulin. These changes will lead to a rise of your blood glucose levels.

How can I know if I have diabetes?

In order to know if you have Type 2 Diabetes, you will need to consult with your health care provider to have your [glycemia](#) (or glucose blood level) tested.

Different glucose blood level tests are available. The 3 main ones are listed below along with their threshold values.

	Pre-diabetes	Diabetes Mellitus
HbA1C	6.0% to 6.4%	$\geq 6.5\%$
Fasting Blood Glucose	6.1 to 6.9 mmol/L	≥ 7.0 mmol/L
Random Blood Glucose	Not Applicable	≥ 11.1 mmol/L

It is important to see Type 2 diabetes Mellitus as the end outcome a long a continuum. Before we are diagnosed with Type 2 diabetes, there are changes that take place in the way our body handles [carbohydrates](#). Pre-diabetes is the stage that precedes over-diabetes type 2 and can be measured with tests currently available. We hope that as we gain increasing knowledge, we will be able to quantify and screen for even earlier stages along the continuum of type 2 diabetes.

What are the symptoms of type 2 Diabetes Mellitus?

The accumulation of glucose in your blood is called [hyperglycemia](#). When the hyperglycemia is mild to moderate, you might not experience symptoms. As the hyperglycemia continues to rise, symptoms do occur. They include but are not limited to: needing to urinate frequently, feeling very thirsty, losing weight involuntarily, having a blurry vision.

Even when the hyperglycemia may not cause identifiable symptoms, it is still silently causing damage to your body. Glucose is not meant to stay in the blood above a level. Over time it will damage small and large blood vessels leading to: heart attacks, strokes, kidney disease and vision problems. It will also damage the nerves in your extremities causing you to feel pain or loss of sensation in the feet and even in your hands with time.

By controlling your diabetes early on, these complications can be delayed and even prevented.

What should I do?

The treatment of your diabetes rests upon 3 main elements: your diet, your physical activity and your diabetes (anti-hyperglycemia) medication.

In addition to the **specific treatment and monitoring** schedule established with your health care provider, here are additional information to help you control your blood glucose level.

Glucose levels in the blood are greatly affected by your lifestyle. To stay as healthy as possible with type 2 Diabetes, it is important to **incorporate all the tools** that help control your glucose levels.

This includes these 3 key steps:

- 1- [Optimizing your diet](#)
- 2- [Being active](#)
- 3- [Optimizing your weight](#)

Monitoring your glucose level from home:

To assess how well your treatment is working, a [glucometer](#) is a handy device. Please consult your local pharmacist to know which ones are available and how it works. Your health care provider can specify at which frequency you should monitor your blood glucose at home. The general glucose level targets are as follows:

- Before meals: between 4.0-7.0
- 2 hours after the beginning of a meal: between 5.0-10.0