



## How Diabetes Develops

Most of the food you eat is turned into glucose, or sugar, for your body to use for energy. The pancreas, an organ near the stomach, produces a hormone called insulin. This hormone is necessary for the body to be able to use sugar or glucose, the basic fuel for cells in the body. Insulin's role is to take sugar from the blood into the cells. When your body does not produce enough insulin and/or does not efficiently use the insulin it produces, sugar levels rise and build up in the bloodstream. When this happens, it can cause two problems: Right away, the body's cells may be starved for energy and over time, high blood glucose levels may damage the eyes, kidneys, nerves or heart.



## Types of Diabetes

There are two main types of diabetes: **type 1 diabetes** and **type 2 diabetes**. Both types may be inherited in genes, so a family history of diabetes can significantly increase a person's risk of developing the condition.

### Type 1 Diabetes

Type 1 diabetes occurs when the pancreas makes little or no insulin. Without insulin, the body is unable to take the glucose (blood sugar) it gets from food into cells to fuel the body. So without daily injections of insulin, people with Type 1 diabetes won't survive. For that reason, this type of diabetes is also referred to as insulin-dependent diabetes. Type 1 diabetes was previously known as juvenile diabetes because it's usually diagnosed in children and young adults. However, this chronic, lifelong disease can strike at any age, and those with a family history of it are particularly at risk.

### Type 2 Diabetes

Type 2 diabetes is the most common form of diabetes. Historically, type 2 diabetes has been diagnosed primarily in middle-aged adults. However, adolescents and young adults are developing type 2 diabetes. This type of diabetes can occur when the body develops "insulin resistance" and cannot make efficient use of the insulin it makes, and when the pancreas gradually loses its ability to produce insulin.



## Help from The National Health Fund

The **National Health Fund** provides subsidies for persons with diabetes to purchase selected diabetes medications.

**Persons with diabetes who are enrolled with the NHF also:**

1. Receive subsidies for purchasing diabetic supplies
  - a. The test strips that are used with blood glucose monitors,
  - b. Lancets – used to prick and obtain the droplet of blood,
  - c. Test strips – to measure blood and urine sugar levels,
  - d. Syringes - or needles used to administer insulin dosages
2. Receive free Insulin Penfill Applicator – device used with needle to deliver insulin dosage\*
3. Receive free blood glucose monitors to better monitor and manage their condition\*
4. The HbA1c test is another benefit available on the NHFcard . It is a simple lab test that shows the average blood glucose level over the last 3 months. It determines if a person's blood glucose level is within the normal range.
  - If you are enrolled with NHF for diabetes you are entitled to four subsidized HbA1c tests during the year
  - If you are enrolled with NHF for other conditions you are entitled to one subsidized HbA1c test during the year.

**\*Conditions Apply**



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**THE NATIONAL HEALTH FUND IS AN AGENCY OF THE MINISTRY OF HEALTH**

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# DIABETES



# CONTROL IT



Friends, Shelly, 45 and Marcia, 47 meet up at the park for the first time. Every 5-10 minutes Marcia stops to urinate.

**Shelly:** "Marcia, looks like you had a lot to drink today"

**Marcia:** "No, not at all but I realise that for the past couple of weeks I have been passing urine often even though I am not drinking a lot of fluids"

**Shelly:** "Is that the only problem you are having?"

As a matter of fact, I have noticed that I have an increased appetite but I have been losing weight too, plus my skin has been dry and itching a lot.

(Symptoms of diabetes)

**Shelly:** "That sounds like diabetes to me. By the way didn't you have some type of diabetes when you were pregnant with your son? My friend I think it's time you visited the doctor."

Three days later at Doctor Brown's office, Marcia explains the problems she has been experiencing

Have you noticed an increase in thirst, any fatigue, blurred vision, cuts that won't heal, sweating, trembling, dizziness?

(Symptoms of diabetes)

Not at the moment.

Doctor Brown conducts a blood sugar test as well as an HbA1c test of Marcia's blood and both readings exceed the normal levels.

**Doctor Brown:** "Marcia you have Type 2 diabetes."



**Marcia:** "What?!, Oh my goodness"

**Doctor Brown:** "Calm down Marcia. If you have a blood relative with diabetes, your risk for developing it is significantly increased. Your age is also a factor. The older you are, the higher your risk. Remember also that you had developed gestational diabetes over 15 years ago during pregnancy and your son weighed 9 lbs."

**Marcia:** "Yes and my mother had diabetes."

The doctor prescribes diabetes medication for Marcia and makes an appointment for the next 3 months.

Next doctor's visit and another blood sugar and HbA1c test is done for Marcia and the levels are once again not normal.



Ok doc, so what is my next move?

**Doctor Brown:** "You have to be serious about lifestyle changes, such as losing weight, eating healthy and increasing physical activity as well as taking your medications as prescribed and monitoring your blood sugar."



So doc, if I don't do all of that what will happen?

**Doctor Brown:** "Marcia, untreated diabetes can result in damage to other organs of the body and result in a number of other diseases such as Heart disease, Stroke, Renal (kidney) disease, Blindness, Nerve disease and Limb amputations."



I am going to get this diabetes under control.

Normal blood sugar readings are:

Fasting	< 7 mmol (126mg/dl)
2 Hours (after meal)	< 11 mmol (200mg/dl)
Random	< 11 mmol(200mg/dl)