

# Diabetes Type 1



## What is it?

**Diabetes** is a condition in which your body is unable to use the glucose/sugar from the food you eat. Glucose/sugar comes from foods such as breads, cereals, pasta, rice, potatoes, fruits and some vegetables. To use glucose, your body needs insulin. Insulin is made by a gland in your body, called the pancreas (a large gland that sits behind your stomach).

## What happens in the body?

Our body cells need fuel to provide energy for living, breathing, seeing and even thinking, just as a car needs fuel to drive. Our fuel comes from the food we eat, which is digested in the stomach and flows into the blood stream as glucose – a form of sugar. To get into the body cells, this glucose needs the assistance of a hormone, called insulin. Normally a gland, called the pancreas, makes insulin, which carries the glucose in the blood into the cells. In type 1 diabetes, the pancreas produces very little or no insulin at all. As a result, the person cannot use the glucose in the food that he or she eats, and the glucose levels in the blood rise. Treatment of type 1 diabetes requires daily injections of insulin. This type of diabetes usually develops in young people, under 30 years old, most often in childhood or as teenagers.

## Signs and symptoms



Excessive thirst



Frequent or recurring infections, including bladder



Tingling and numbness in the hands or feet



Blurred vision



Frequent urination



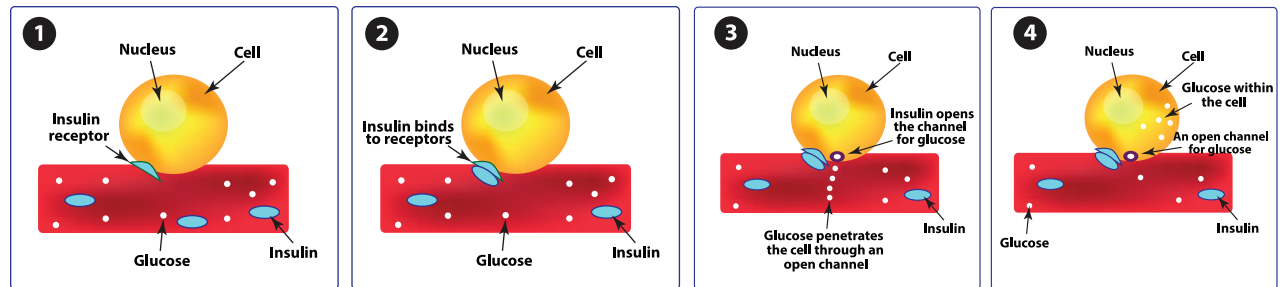
Slow-healing cuts or bruises, boils, itching skin



Constant fatigue



Unusual weight loss



## Diagnosis



A fasting (no food overnight) blood sugar of more than 7.0 mmol/l is usually diagnostic.



The formal diagnosis of diabetes is based on a blood sugar level test.



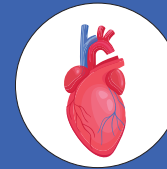
# Complications

**Living with blood glucose** that stays over 8 mmol/l for a long period of time can cause serious damage to your body. It can be very frightening to think about this but, with **early detection and good care**, advances in medical treatment make it perfectly possible for you to stay healthy. It is thus critical that you take your medication as prescribed, and control your blood glucose levels carefully through your **diet and lifestyle**. High blood glucose, for a long time, damages the large and small blood vessels and fine nerve endings. If unchecked, this can cause problems that can lead to blindness, kidney failure, heart attacks, strokes and amputations.

## Long term complications



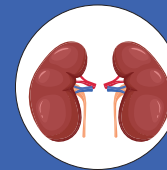
**Damage to your nerves (neuropathy)** – Nerve damage leads to loss of sensation in the feet, and they become particularly vulnerable to wounds and infection, which may, in severe cases, lead to gangrene and subsequent amputation. Foot ulcers are also common, which are slow to heal and become infected. Numbness, tingling and a reduced sensation can also occur in the hands and legs. It is important to have regular check-ups for this.



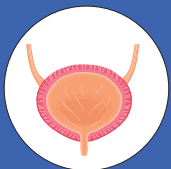
**Vascular damage**, leading to heart disease and stroke – The main arteries become stiff and blocked, blood pressure increases and the heart becomes stressed. Circulation, particularly to the hands and feet, becomes poor. Make sure that you test your blood pressure regularly and that you do some form of exercise.



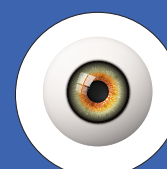
**Sexual dysfunction** – Nerve damage can also affect sexual health, causing impotence or failure to have an erection in men, and inability to achieve orgasm in women.



**Damage to your kidneys (nephropathy)** – Kidney damage can be detected by testing the urine for protein (microalbuminuria). This test should be done every year – chat to your doctor.



**Increased risk of infections** (especially bladder infections), itchiness, sores, boils, etc. are common, as high blood glucose inhibits the action of the white blood cells (the body's main germ fighters).



**Loss of vision (retinopathy)** – Have your eyes checked by an ophthalmologist annually.



# Management 1

There is no cure for diabetes, but it can be managed successfully with a healthy lifestyle and medication in the form of insulin injections.

2 The aim of treatment is to bring blood glucose levels into the **normal range**, which is 4 – 6 mmol/l.

## LIFESTYLE CHANGES

The main goals of managing your diabetes include:



**Maintaining a healthy weight** – Being overweight or obese is a major cause of diabetes. It also accelerates the development of complications and makes blood sugar control more difficult.



**Staying active** – Exercising does not mean having to go to the gym every day. If you can – that's great, but for those who do not like the gym, walking daily is an easy form of staying active.



**Drink alcohol in moderation** – Too much alcohol will increase your blood pressure and cholesterol, as well as increase your risk of heart and liver disease.



**Eyecare** – Poor vision can occur (retinopathy). It is important to have your eyes checked annually.



**Manage your blood pressure and cholesterol** – Keep your blood pressure and cholesterol under control (ask your doctor for advice).



**Foot care** – Pay special attention to your feet. If you neglect foot care, it can result in problems due to damage to the nerves (neuropathy). Visit a podiatrist (foot doctor) at least once a year.



**Following a healthy diet** – Good blood sugar control, through a healthy diet, reduces the risk of complications. Consult a dietician to get help with an eating plan.



**Quit smoking.**

## Treatment

**Medication** – Insulin works to lower your blood glucose. Your doctor will discuss this with you. As diabetes impacts your immune system, it is also recommended that the flu vaccine be administered annually. This can be done by your doctor or via the Health Booster benefit, at your pharmacy.

**Ongoing testing** – Good management entails regular blood glucose monitoring – that is, testing your blood glucose levels and adjusting your insulin accordingly. Regular blood glucose checks with a home blood glucose monitor, is critical. Another target to keep in mind: Your doctor will mention your HbA1c level. This reflects your average blood glucose control over the last three months. Most diabetics should aim for a value of less than 7, but it's best to chat to your doctor about your specific target level.

**Regular visits** – Regular check-ups with your GP (minimum 2 visits per year), ophthalmologist (minimum 1 visit per year), podiatrist (minimum 1 visit per year) and dietician (as needed).