



Information for Patients & Caregivers

What You Need to Know About Type 1 Diabetes in Adults and Elderly

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There is a hormone in your body called **insulin** that regulates your blood sugar level. It is produced from a gland called the **pancreas** located close to the stomach.

Insulin transfers glucose from the blood to the cells of the body. If the pancreas does not produce enough insulin, glucose builds up in the blood and causes damage.

WHAT IS TYPE 1 DIABETES?

Diabetes is a condition in which the blood sugar level becomes too high. This can be due to either a lack of insulin production from the pancreas, or resistance to insulin's action in the body.

There are two main types of diabetes:

- Type 1 diabetes.
- Type 2 diabetes.

Type 1 diabetes occurs when your body produces little or no insulin. Sugar then builds up in the blood and causes damage to the blood vessels, kidneys, and eyes, and can lead to heart attacks and strokes.

The main symptoms of type 1 diabetes are:

- Intense thirst.
- Going to the toilet to urinate more than usual, especially at night.
- Increasing tiredness or weakness.
- Weight loss.
- Blurred vision.

In extreme cases, type 1 diabetes can also cause:

- Nausea or vomiting.
- Pain in the abdomen.
- Loss of consciousness.
- Death.

Type 1 diabetes has no cure, but there are treatments to control it successfully. If you have any of the symptoms listed above, see your doctor immediately.

WHAT CAUSES TYPE 1 DIABETES?

Type 1 diabetes can occur when the body's immune system destroys the cells in your pancreas that make insulin. This is called **Immune-Mediated Type 1 Diabetes**.

The factors that trigger the body's immune system to attack these cells are complicated and still poorly understood. However, you may be at increased risk of developing type 1 diabetes if:

- You have a family history of type 1 diabetes.
- You have other autoimmune diseases.

Often, doctors cannot find the root cause of type 1 diabetes. This condition is called **Idiopathic Type 1 Diabetes**.

Regardless of the underlying cause, type 1 diabetes is treated in the same way using insulin injections.

WHEN SHOULD I SEE A DOCTOR?

You should see a doctor as soon as possible if you have a family history of diabetes and any of the following features:

- One or more of the main symptoms associated with diabetes.
- Persistent infections or a slow wound healing.

You should see a doctor immediately if:

- You develop sudden onset of a fruity odour in your breath, heavy breathing, and vomiting.
- Feeling very unwell.

To be diagnosed with type 1 diabetes can be a frightening or overwhelming experience. If you have questions about why it developed, what it means for your long-term health, and how it will affect your everyday life, please speak to your doctor.

WHAT YOUR DOCTOR WILL DO

To find out if you have type 1 diabetes, your doctor will ask questions about your symptoms, family history and lifestyle.

Your doctor will also examine you and order some tests to confirm the diagnosis. These tests may include:

- **A blood sugar test or finger prick test:** This is a quick test to check how much sugar is present in your blood.
- **A urine test:** To check the levels of sugar and ketones in your urine. Ketones are chemicals produced by the body when it uses fat as fuel instead of sugar.
- **Fasting blood sugar test:** Your doctor may ask you to fast for 8 hours before testing your blood sugar to get a more accurate measure of your blood sugar level.

If you are diagnosed with type 1 diabetes, your doctor will refer you to the hospital for specialist treatment. If your condition is severe, the doctor will admit you for immediate care.



TREATMENTS FOR TYPE 1 DIABETES

The main goals of treatment are to keep your blood sugar levels within the normal range and reduce your risk of developing complications. There are two ways to achieve these goals:

Insulin: These help to control your blood glucose level and keep it as close to normal as possible. The specialist will usually start you on insulin once the diagnosis of type 1 diabetes is confirmed. You may need to take it for the rest of your life.

There are different types of insulin. They are classified by how quickly they work and how long they last in the body. They include:

- Rapid-acting insulin
- Short-acting insulin
- Long-acting insulin.

There are also different ways to take them. You can take insulin by injections or insulin pumps. The specialist will discuss what type of insulin and the method that is best for you.

Insulin Injection is the most common form of treatment. Your doctor will teach you how and where to inject on your body. However, it is best to change the exact spot that you use within the injection sites each time. This is because insulin may cause soft lumps of fat to build up around the injection site under your skin when given repeatedly in the same spot.

Other medications: The doctor may also prescribe medicine to lower your cholesterol level and reduce your risk of developing complications such as heart disease and stroke.

Blood sugar monitoring: Your doctor or nurse will explain how to measure your blood sugar, and how often to do it, to ensure it does not go too low or too high. You will need to carefully plan your meals and activity levels because eating raises blood sugar while being active lowers it.

GENERAL ADVICE

You can help control your type 1 diabetes and reduce your risk of developing complications by keeping to the following advice:

- **Take your medications** as instructed. Do not double your dose if you miss an injection.
- **Speak to your doctor about whether to continue your medications** if you are unwell and unable to eat.
- **Ensure you are up to date with your vaccination.**
- **Eat a healthy diet** such as fruits, vegetables, and foods low in cholesterol.
- **Exercise regularly** for at least two and a half hours every week.
- **Stop smoking** if you smoke.
- **Have your eyes checked every year** and inspect your feet every day.
- **Control your medical conditions** by taking your prescribed medicines regularly.

Taking too much insulin can make your blood sugar become very low. This can be dangerous. Some symptoms of low blood sugar include:

- Sweating or shaking.
- Feeling anxious or confused.

You can quickly treat this at home by taking sugar or sweet drinks, and then see your doctor immediately.

FOLLOW UP

Once you start treatment to control your diabetes, you should see your doctor regularly for check-ups and follow-up treatments.

Regular check-ups will allow your doctor to monitor your health and adjust your medications to prevent side effects.



IMPORTANT TIP: Try to keep a home diary of your glucose readings. This will help you to monitor your progress.

ADDITIONAL INFORMATION

Additional information on Type 1 Diabetes can be found in the National Clinical Guideline published by The Ministry of Public Health (MOPH) Qatar.

The guideline is available to the public from the MOPH website: www.moph.gov.qa

