



Information for Patients & Caregivers

What You Need to Know about the Chronic Complications of Diabetes

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There is a hormone in the body called **insulin** that regulates our blood sugar level. It is produced from a gland called **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 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 or resistance to insulin's action in the body.

There are two main types of diabetes:

- **Type 1 Diabetes** occurs when the body produces little or no insulin.
- **Type 2 Diabetes** usually develops slowly and is caused by resistance to insulin's action in the body.

The main symptoms of diabetes are:

- Intense thirst or dry mouth.
- More frequent urge to urinate than usual.
- Increasing tiredness or weakness.
- Weight loss.
- Blurred vision.

As sugar builds up in the blood, it causes damage to different organs in the body. With time, both type 1 and type 2 diabetes can lead to chronic complications which can be serious if they are not detected and treated quickly. Some of these complications include:

- Eye problems.
- Kidney disease.
- Nerve damage.
- Cardiovascular Disease.
- Foot problems.

You can lower your risk of developing any of these complications by visiting your doctor regularly for check-ups and keeping your blood sugar within the normal range.

+ RISK FACTORS FOR DIABETES COMPLICATIONS

Factors that may increase your risk of developing diabetic complications include:

- Persistently high blood sugar.
- Having diabetes for many years.
- Being overweight or obese.
- High blood pressure.
- High blood cholesterol.
- Smoking.
- Lack of exercise.
- Having a family history of early heart disease.
- Pregnancy.

+ RISK FACTORS FOR DIABETES FOOT PROBLEMS

In addition to the above factors, other things that can increase your chances of developing a foot complication of diabetes include:

- History of foot ulcers.
- Previous amputation.
- Improper footwear.
- Poor foot hygiene.

+ WHEN SHOULD I SEE A DOCTOR?

You should see a doctor as soon as possible if you have been diagnosed with diabetes and have:

- One or more of the above risk factors.
- Diabetic symptoms, despite taking your medications.
- Difficulty with your vision.
- Loss of sensation or burning pain in your feet.

+ WHAT YOUR DOCTOR WILL DO

To determine if you have a complication of diabetes, your doctor will ask questions about the duration of your diabetes, past blood sugar levels, current medications, and history of co-existing medical illnesses.

Your doctor will perform a thorough physical examination. He or she will determine your risk of developing **cardiovascular disease**, based on your age, sex, weight, height, blood pressure and other factors.

Your doctor will do a **foot examination** to check for problems such as poor circulation, loss of sensation and skin damage.

Your doctor may also order or refer you for some tests to check for complications. These tests may include:

- **An eye screening test:** To check for any of the diabetic eye problems.
- **A urine test to check for kidney problems:** This test checks for the presence of a protein called albumin. If there is a large amount of albumin in your urine, it may mean you have diabetic kidney disease.
- **A Blood test:** to check your cholesterol levels.

If a complication is detected, your doctor may start treatment immediately or refer you to the hospital for specialist treatment.



+ TREATMENTS

Blood Sugar Control. The main goal of treatment is to keep the blood sugar level within the normal range. There are two ways to achieve this goal:

Lifestyle Advice: Your doctor will recommend lifestyle changes such as:

- **Eating a healthy balanced diet.** To control your weight and ability to produce and respond to insulin. The doctor may refer you to a dietitian for counselling.
- **Regular exercise** to improve your body's response to insulin.

Medication: Your doctors may adjust the dose or type of medication you are taking for diabetes to improve your glucose control.

Depending on the type of complication, your doctor may add the following medications:

- **Blood pressure control medicines.** These can help prevent kidney, heart, and eye-related complications. Examples include a group of medications called **ACE Inhibitors**.
- **Medicines for controlling blood cholesterol.** The most common of these medicines are called **statins**.
- **Antiplatelet medications.**
- **Pain control medicines** to help alleviate pain associated with diabetes-induced nerve damage.

Managing your blood sugar requires ongoing treatment and regular monitoring.

+ GENERAL ADVICE

You can help prevent diabetic complications, or delay their progression, by keeping to the following advice:

- Ensure your blood sugar is kept under control.
- Take your diabetes medicines as instructed.
- **Avoid protein-rich diets** if you have diabetic kidney disease.
- **Limit your salt intake** if you have high blood pressure.
- **Monitor your blood pressure regularly** and take your medicines as prescribed.
- **Stop smoking** if you smoke, as this can worsen your diabetes.
- **Maintain a healthy weight.**
- **Exercise regularly** for at least two and a half hours every week.

IMPORTANT TIP: Try to keep a home diary of your blood sugar and blood pressure readings. These will help you to monitor your progress.

+ FOLLOW-UP SCREENING

If you have type 1 diabetes, you should undergo screening for any potential complications beginning five years after been diagnosed with diabetes, and annually thereafter.

If you have type 2 diabetes, you should be screened for complications of diabetes at the time of your initial diagnosis and then annually thereafter.

Regular screening will allow your doctor to monitor your health and quickly identify and manage any complications.



+ ADDITIONAL INFORMATION

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

The guideline is available for public the MOPH's website: www.moph.gov.qa

