

## Diabetes and kidney care

### Introduction:

The human body contains two fist-sized kidneys, located on either side of the spine at the bottom of the rib cage. Within each kidney, there are approximately a million small structures called nephrons.

The nephron is in charge of filtering the blood, by removing toxins and excess water, and turning them into urine. Other useful substances, on the other hand, (like: proteins and red blood cells) are too big and can not be filtered through the nephron, so they return to the bloodstream. Urine then travels through tubes called ureters and reach the bladder, which collects and stores urine before disposal by urination.

Most kidney diseases cause damage to the nephrons, and this damage reduces the kidneys' ability to filter blood and remove toxins and excess fluids from the body.

### Other Names:

Diabetic Nephropathy

### The Effect of Diabetes on the Kidneys:

Over time, high blood sugar levels in people with diabetes can cause damage to the blood vessels (inside the nephrons) and the nerves. Additionally, the filtration of large amounts of glucose can put a strain on the kidneys. After several years, useful proteins start to pass into the urine, and, in advanced stages, the patient may even develop kidney failure.

### Symptoms:

In the early stages, the patient may not notice any signs or symptoms. In later stages, the symptoms include:

- Fluid retention.
- Fatigue and exhaustion.
- Difficulty concentrating.
- Loss of appetite.
- Insomnia and difficulty sleeping.

### Frequently Asked Questions:

- **How many times a year should diabetes patients get their kidneys checked?**

Type 2 diabetes patients must get a urine test and a kidney function test as soon as they are diagnosed, and then once every year. Type 1 diabetes patients, on the other hand, must get a urine test and a kidney function test five years after the diagnosis, then once a year. Patients who suffer from kidney failure may need more tests and follow-up visits with a nephrologist.

**Clinical Health Education Department**  
**For more information, please contact us by [email](mailto:Hpromotion@moh.gov.sa)**  
[Hpromotion@moh.gov.sa](mailto:Hpromotion@moh.gov.sa)