

# Chronic Kidney Disease and Diabetes

## Anyone with diabetes can get kidney disease.

Diabetes and high blood pressure are the most common causes of kidney disease, and people often have both.

Chronic (long term) kidney disease ([CKD](#)) caused by diabetes always affects both kidneys and does not go away. Rather, it may get worse over time and can lead to kidney failure. If the kidneys fail, the choices available to the person include going on [dialysis](#), getting a kidney transplant or conservative treatment.

Kidney disease can be treated though, and the sooner you know you have it, the sooner you can get help to keep your kidneys working for longer.

## How do you know if you have kidney disease?

Most kidney diseases do not cause any symptoms until the late stages, but your doctor can do some simple tests to see if you have kidney disease.

The main tests are:

- A [blood pressure](#) check – high blood pressure can be caused by kidney disease or can cause kidney disease.
- A urine test for [protein](#) – leaking of protein from the kidneys is an early sign of kidney damage in diabetes. The more damage to the kidneys the more protein they leak.
- A simple blood test to measure [creatinine](#) levels – this test is used to measure overall kidney function or the [estimated Glomerular Filtration Rate \(eGFR\)](#).

**You can ask your GP if your kidneys are OK at your annual diabetes check.**

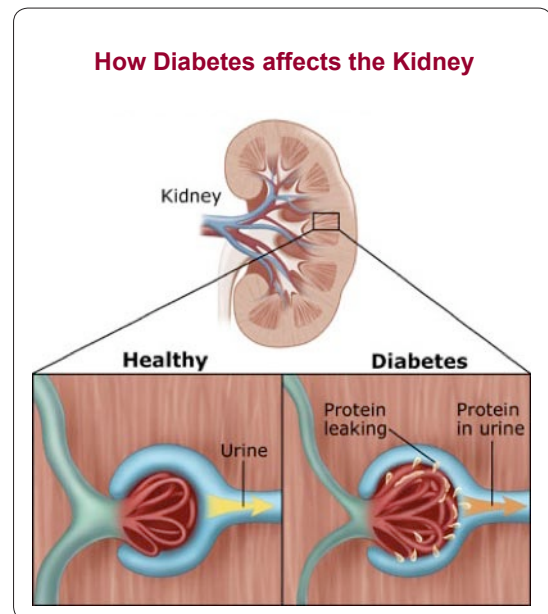
## Diabetes and Kidney Disease

Diabetes is the most common cause of chronic kidney disease in New Zealand. Maori and Pacific Island people with diabetes have an increased risk of getting chronic kidney disease.

Over a long period of time diabetes causes damage to the filters in the kidney. As the kidneys get more damaged they are not able to clean or filter the blood properly. Wastes and extra water build up in your body making you feel sick, tired and breathless.

Imagine your kidney as a sieve, and the holes of the sieve are slowly blocked up. At first the sieve will still work but over time as more of the holes become blocked the sieve will stop working. You could say that kidney failure happens in the same way.

If you have diabetes you should be tested once a year to see if diabetes has damaged your kidneys. Your doctor will do a kidney check, which will include a blood test, urine test and check of your blood pressure. As a result of these tests a kidney doctor may want you to have further tests to find out more information.



## What can you do to prevent kidney damage?

Chronic kidney disease is not usually curable. The good news is that if your doctor finds out early that you have a kidney problem, there are a number of ways to help slow down the disease.

If you have diabetes, good blood pressure and blood sugar control are very important in reducing the risk of kidney damage.

Lifestyle changes such as losing weight, exercising, stopping smoking, eating less salt and drinking less alcohol can help lower your blood pressure.

## So what can you do to help yourself?

- Understand the blood tests your doctor orders and what the results mean. This is an important way of knowing what is happening to your kidneys.
- Ask your doctor what your blood pressure should be and what you can do to keep it at a safe level. You can also ask your doctor if you should be prescribed medicines to control your blood pressure, (for example, [angiotensin-converting enzyme \(ACE\) inhibitors](#) and [angiotensin receptor blockers \(ARBs\)](#)) that can help slow the damage to the kidneys in people with diabetes.
- Keep good control of your blood sugar levels to help slow the kidney damage. Agree on target blood sugar levels with your doctor and check your blood sugar levels regularly. You may need to adjust your diabetes medicine – talk to your doctor about this.
- Have your urine tested for protein every year
- Make healthy food choices. It is important to follow the eating plan given out by your dietitian
- If you are overweight, lose weight
- Avoid becoming 'dry' (dehydrated), especially when you are sick
- Stop smoking or don't start smoking
- Make sure you do some regular physical activity (like walking)
- Only drink small amounts of alcohol
- Control blood [cholesterol levels](#) with diet and medication as needed
- Do not take non-steroidal medications such as Nurofen
- Have [urine infections](#) treated immediately.

## What happens if my kidneys fail?

Symptoms of kidney failure usually occur only in the late stages of the disease, when kidney function has decreased to less than 25% of normal.

If your kidneys are about to fail, you may have symptoms such as tiredness, nausea and vomiting. You may also find that you need less insulin than usual.

When the kidneys fail completely, wastes and water will build up in the body and dialysis treatments or a kidney transplant is needed. If you do not have treatment for your kidney failure you will die.

**Click on the picture** if you would you like to hear what Nick has to say about diabetes and kidney disease?

If you have diabetes there are plenty of things that you and your doctor can do to help your kidneys. A good start is a visit to your family doctor to talk about the care of your diabetes.

### ◀ **CHRONIC KIDNEY DISEASE**

Chronic kidney disease (CKD), also known as chronic renal disease is a term used to describe kidney damage or reduced kidney function (irrespective of the cause) that persists for more than 3 months.

### ◀ **DIALYSIS**

The process of cleaning wastes from the blood artificially. This job is normally done by the kidneys. If the kidneys fail, the blood must be cleaned artificially with special equipment. The two major forms of dialysis are hemodialysis and peritoneal dialysis.

### ◀ **BLOOD PRESSURE**

The pulsating pressure of blood flow through an artery.

### ◀ **PROTEIN**

Proteins form a large and essential part of the normal body. The health kidney filter ensures that protein is not lost through the kidney filters.

### ◀ **CREATININE**

Creatinine is a product of muscle metabolism and excreted by the kidneys. Elevated levels can indicate kidney disease.

### ◀ **ESTIMATED GLOMERULAR FILTRATION RATE (eGFR)**

Glomerular filtration rate (GFR) describes the flow rate of filtered fluid through the kidney. The eGFR is an estimate of this flow rate obtained from a blood creatinine test.

### ◀ **ANGIOTENSIN-CONVERTING ENZYME (ACE) INHIBITORS**

A type of blood pressure lowering drug.

### ◀ **ANGIOTENSIN RECEPTOR BLOCKERS (ARBs)**

A type of blood pressure lowering drug.

### ◀ **BLOOD CHOLESTEROL**

A fatty substance that occurs naturally in the body and which is necessary for hormone production, cell metabolism, and other vital processes.

### ◀ **URINE INFECTIONS**

A urinary tract infection (UTI) is a bacterial infection that affects any part of the urinary tract.

