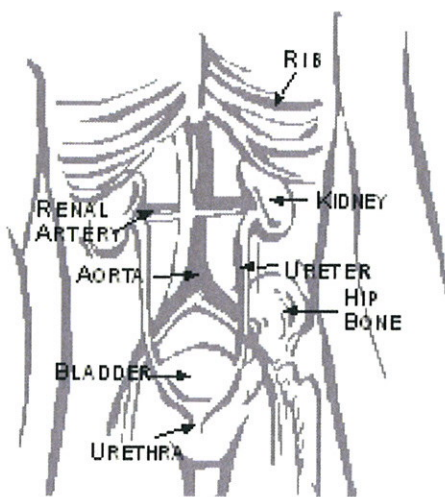


Kidney Health

What are the kidneys?



Most people have two kidneys. They are located near the middle of your back, just under the ribcage. Each kidney weighs about 150g, and is about the size of an adult fist. They are bean-shaped and reddish brown in colour.

The kidneys perform crucial functions that affect all parts of the body.

What do kidneys do?

The kidneys have four main roles in the body.

- Remove waste from the body. Nutrients that cannot be used by the body become toxic. The kidneys filter the blood to remove them from the body in the urine
- Remove excess water from the body
- Make and regulate important hormones in the body. These hormones control red blood cell production, blood pressure regulation and calcium absorption
- Control body chemistry by regulating the amount of salt, water and other chemicals circulating in the body.

What diseases can cause the kidneys to stop working?

Various diseases can affect kidney function. These include:

- high blood pressure
- diabetes
- hereditary disease of the kidneys
- inflammation of the kidneys (called nephritis)
- scarring of the kidneys (due to backflow of urine from the bladder)
- urinary tract infections eg bladder infections
- kidney damage as a side effect of medication, particularly pain killers and in the past, headache powders

The impact of these on kidney function can vary. If you have any of these conditions it is important to seek your doctor's advice about their long-term effects on the kidneys.

What are some of the symptoms of kidney disease?

Signs and symptoms of kidney disease can vary considerably between individuals. The first signs may be general and can include:

- changes in frequency and quantity of urine passed, especially at night
- pain or burning when passing urine
- blood in the urine
- puffiness around the eyes and ankles
- tiredness

Kidney disease often causes no symptoms at all. It is not uncommon for people to lose up to 70% of their kidney function before developing any symptoms.

How is kidney disease detected?

Many of the causes of kidney failure strike at random, and cannot be predicted or prevented. Others, such as diabetes, are present for many years before they develop into kidney failure. When this is so, there is an opportunity for early diagnosis and prevention of progression of kidney failure to end stage. Recent advances in our understanding of the nature of kidney failure have identified some classes of drugs which seem to particularly protect the kidneys, and to slow or in some cases prevent the gradual deterioration of the kidneys.

This new research has created a great deal of interest in the possibility of picking up kidney failure early and offering preventative treatment before the kidneys are completely destroyed. These early detection and prevention programs are particularly targeted at high risk groups such as those who have diabetes, high blood pressure, a family history of kidney disease or other predisposing factors.

If you or a member of your family fall into these groups, you should talk to your local doctor about being tested for kidney failure. There are several tests that can detect kidney disease.

The initial basic testing procedures can be performed by your GP. If a problem with the kidneys is detected, further testing is necessary. The tests that can confirm the presence of kidney disease include:

- Blood tests: these measure blood levels of creatinine and urea. Both of these products are normally excreted in the urine, but if the kidneys are not functioning properly, increased amounts can be detected in the blood.
- Urine tests: the presence of protein in the urine, simply diagnosed with a dipstick tests, can often be a marker for silent kidney disease.
- Renal imaging: involves taking a picture of the kidney using a variety of methods, such as ultrasound, CAT scan or magnetic resonance imaging. These tests help determine if there are any unusual growths or blockages to the flow of urine.
- Renal biopsy: a hospital procedure in which a needle is inserted through the skin into the kidney. A small sample of kidney tissue is removed for microscopic examination.

What is the treatment for kidney disease?

You can look after the health of your kidneys by following these points:

- Have your blood pressure checked at least once a year
- Have your blood sugar checked for diabetes
- Don't smoke – there is no safe level of smoking and it damages blood vessel walls.
- Check your cholesterol levels (high cholesterol damages blood vessels in the kidney)

- Maintain your weight within a healthy range for your height with a well-balanced diet – regular exercise will also help control your weight.
- Have an annual check-up with a GP. If you need a blood test, ask for your kidney function to be checked. Ask for your urine to be checked for blood, protein and sugar.

For more information please phone the New Zealand Kidney Foundation's Information Line (free phone)
0800 KIDNEY / 0800 543 639

Have your blood pressure checked once a year