

According to the National Kidney Foundation, Singapore has the fifth highest incidence of kidney failure in the world, with about 20.1% Singaporeans suffering from hypertension and 8.2% from diabetes.

### Our bean-shaped organs

Urine formation involves an elaborate process involving excretion and reabsorption of body fluids. The kidneys are two bean shaped organs, about the size of your fist, which is responsible for forming urine. Their major function is to get rid of waste products and fluid that is no longer needed by the body, to maintain the equilibrium of chemicals in the body.

These organs are so important in the body that they are assigned numerous tasks to carry out. Aside from their critical role in regulating the salt and potassium content of the body, the kidneys maintain the acid-base balance of the body and produce hormones and vitamins as well. Through these hormones, the kidneys help to control the blood pressure and make red blood cells.

When these organs are damaged in any way, they fail to accomplish their role in maintaining equilibrium. The body's waste products are retained in

the body, causing more damage. There are a variety of diseases associated with the kidneys. Some are present at birth, involving defects in the formation of the urinary tract; some are inherited, while others are acquired. Kidney diseases may range from kidney stones, infection and inflammation (nephritis). Injury to these organs may also be a consequence of long standing hypertension and diabetes mellitus.

### When they fail

How can you tell that your kidneys are failing you? Telltale signs of kidney disease include burning sensation during urination or difficulty passing out urine, increased frequency of urination, blood in the urine (tea-coloured or bright red urine), lower back pain and high blood pressure. Some symptoms such as puffiness around the eyes and/or swelling of the hands and feet are evidences of an advanced stage of kidney disease.

Kidney failure can occur acutely or from chronic problems. Acute renal failure can result from a variety of abuse to the body, resulting in the rapid loss of kidney function. Chronic kidney disease (CKD) is the persistent and permanent impairment of kidney function, progressing over months to years. Poorly controlled diabetes, heart disease and long standing hypertension are the

common culprits blamed for CKD. In order to live on, CKD patients need dialysis or transplantation to replace the kidney function.

Due to its ageing population and the increasing number of people with hypertension and diabetes, the incidence of kidney disease and kidney failure is rising alarmingly in Singapore. The public has to be aware of CKD, to control the rising number of Singaporeans succumbing to this disease. Early recognition of kidney disease is crucial in its management. In fact, it can be lifesaving. Symptoms of kidney failure include loss of appetite, weight loss, decreased frequency and amount of urination, blood in the urine, vomiting, itching, difficulty of breathing and confusion. If you have the symptoms of kidney disease or if you are at risk of having chronic kidney disease, consult your doctor and work out a plan for regular check-ups.

The next time you go to take a leak, check whether you are experiencing the warning signs mentioned above. It is also prudent to regularly check your blood pressure and blood glucose to pick up hypertension and diabetes in its early stages, so that management can be implemented early. If you are on the other end of the spectrum, you can look after your kidneys' health by maintaining a healthy diet and by staying active.



# Kidney awareness

Take care of your kidneys before a problem crops up

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