

Renal check

Though kidneys aid the removal of waste from the body, control blood pressure and regulate hormones, renal health is often not given enough importance

BY BINDU GOPAL RAO



Just like the heart, liver, pancreas and lungs, renal health is also important. Kidneys, about the size of one's clenched fist, are bean-shaped and reddish-brown in colour. This vital organ is responsible for eradicating waste from the blood and returning clean blood back to one's body. Other notable functions of the kidneys include maintaining body fluid at the correct levels, and making and regulating important hormones in the body that is responsible for controlling blood pressure.

Holistic health

Kidneys maintain the body's fluid and electrolytes, the pH level of blood and amount of water in the body. They aid in the distribution of nutrients in the cells and removal of waste from it. A balanced electrolyte level is important for nerves, muscles, heart and brain to function properly. Kidneys also help in reabsorption of nutrients such as glucose, amino acids, water, chloride, sodium, magnesium, potassium and ions from the blood and transporting them to various parts of the body. Kidneys are responsible for maintaining the body's internal environment so that it functions optimally. For that reason, they are involved in the secretion of waste products and excretion of excess water. These actions result in the regulation of acid, salt and potassium levels in the body. The kidneys also produce red blood cells (erythropoietin) and hormones that regulate blood pressure (renin-angiotensin). They are also important for bone health (active vitamin D).

Kidney issues

One of the most common kidney problems is chronic kidney disease where there is a gradual loss of function over time and this can be life-threatening. "Other kidney issues are kidney stones (a hard collection of salt and minerals that are made up of calcium and uric acid which form inside the kidney), polycystic kidney disease (here, clusters of cysts develop within the kidneys, owing to which it can enlarge and lose function), and kidney failure," says Dr Chandan Chaudhari, department of nephrology, Wockhardt Hospital, Mumbai Central. Some of the symptoms to watch out for include reduced amount of urine, swelling around eyes, ankles and feet, frothy urine, unexplained shortness of breath and fatigue or general weakness. Urinary tract infection (UTI), polycystic kidney disease (cyst formation in the kidney) and glomerulonephritis, an inflammation of glomeruli due to infections, drugs and disorders that occur during or shortly after birth are other issues. According to a research report, chronic kidney diseases have become a major cause of global morbidity and mortality. In India, the prevalence of chronic kidney disease is 800 per million population (pmp), and end-stage renal disease (ESRD) is 150-200



Myths

- ◆ Rock salt is better than iodised salt.
- ◆ Barley water has medicinal value in urinary tract infections.
- ◆ Cranberry juice intake is beneficial in urinary tract infections.
- ◆ Patients with stone disease should avoid vegetables or fruits with seeds.
- ◆ Consumption of high volumes of water (10-12 glasses per day) is essential for kidney health.
- ◆ Avoid calcium in all stone disease.

increases your BP and risk of having stones. Sugar increases your weight which in turn is a risk factor of diabetes. One myth which is very common is that if you drink 2-3 litres of water early in the morning, it helps your kidney health. Maintaining hydration is very important for kidney health, but it has to be maintained throughout the day. So, my suggestion is to take fluid not only in the morning but throughout the day at regular intervals in moderate amounts; 1.5-2litres per day is good enough for a normal person.”

Food fix

Avoid colas, canned and processed food, packed, instant and pre-made meals. Opt for blueberries, egg whites, buckwheat, olive oil, cabbage, bell peppers and onions to keep your kidneys healthy. According to Dr Manjunath S., consultant nephrologist, BR Life SSNMC Super Specialty Hospital, following a healthy diet plan is of utmost importance in keeping kidneys healthy and preventing various diseases. A kidney-friendly diet not only protects the kidneys, but it also helps stop further progression of the disease in people with existing kidney disease. “A diet plan is usually recommended depending on the type of kidney disease and its severity. An ideal diet plan is to limit intake of sodium, phosphorus and potassium, and consume a healthy amount of protein. Eat plenty of fruits and vegetables. One may consider including fruits such as apples and pineapples, and vegetables such as cauliflower, cabbage, garlic, onion in the diet. It is imperative to limit intake of food items rich in sodium, phosphorus and potassium, such as bananas, dairy products, processed meats, potatoes, tomatoes, whole-wheat bread and oranges,” he says.

Says Dr Haresh Dodeja, consultant nephrologist, transplant physician and head of renal sciences, Fortis Hospital, Mulund: “A high protein diet is to be avoided, but proteins in normal quantities can be consumed. The most common mistake people make is to

avoid all kinds of proteins. This leads to malnutrition, which harms the patient in the long run.”

“The dietary requirements differ with the stage of kidney disease. For example, for a patient on dialysis, a diet low in fluid, salt, potassium and phosphorous content is advocated. Depending on the kidney disorder, diet modifications are advised. High purine diets are to be avoided in patients with uric acid disorders. In patients with stone disease, high fluid volume intake may be recommended,” says Almeida.

Health check

To keep your kidneys healthy, opt for tests like urinalysis and serum creatinine test. These tests will be carried out by an expert after which a proper line of treatment will be recommended. People with diabetes should be extra cautious as it can affect your kidneys in a negative way. They may suffer from kidney damage and hence must monitor blood sugar levels on a regular basis. Avoid taking over-the-counter medication that can be risky and only opt for the medications prescribed by the doctor. People with risk factors need to do regular health check-ups to monitor their blood sugar and cholesterol levels. Since most kidney diseases at their initial stage do not show any signs or symptoms, it is recommended to undergo certain tests and know your kidney health. “It is conducted to know how well your kidneys function. The GFR (glomerular filtration rate) will determine the stage of kidney disease. Urine tests help to test the amount of albumin and RBC leakage in your urine. A high amount of albumin indicates early sign of kidney damage,” says Manjunath. In an individual with a history of kidney disease in the family, tests are advised to monitor kidney function or to detect kidney disorder early so that corrective steps or steps to retard the deterioration of kidney disease may be adopted (for instance, in polycystic kidney disease which runs in families). Urinalysis is one such common test used to screen for kidney disease. □

pmp. Dr Alan Almeida, consultant, nephrology, Hinduja Hospital Khar says, “Kidney diseases related to diabetes and blood pressure are the leading causes of kidney failure. In addition, indiscriminate drug use, environmental toxins, infections including diarrhoeal illnesses, may also contribute to kidney failure. Symptoms pointing

to kidney disease may vary in intensity and may not necessarily point to a kidney ailment.”

Fitness matters

Staying fit can be beneficial for your kidney health. High blood pressure tends to take a toll on your kidneys, thus it is essential to keep your num-

bers in check. Drink plenty of fluids to keep your kidneys in top shape. Smoking can damage the body’s blood vessels and this can lead to slower blood flow to the kidneys. Dr Kamal Kant, Rama Hospital, says, “Kidneys play a key role in body function, not only by filtering the blood and getting rid of waste products, but also

by balancing the electrolyte level in the body, controlling blood pressure and stimulating the production of red blood cells.”

Says Dr Salil Jain, consultant nephrologist, director and HOD, NephroPlus at Fortis Memorial Research Institute: “Try to take the least amount of salt and sugar. Salt