



## Diagnosis and Dialysis of Chronic Kidney Disease

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### DESCRIPTION

A blood test is the primary test for renal disease. The test analyses the amount of creatinine levels in the blood. The blood test results, along with age, height, weight, gender, and race, help the doctor determine how much waste the renal system should be able to filter in a minute. They are basically in charge of eliminating contamination, more water, and other irritants from the blood. The bladder holds these noxious substances, which are then expelled during urination.

The pH levels, sodium chloride, even mineral levels in the human body are controlled as well by the kidneys. They produce hormones that regulate the creation of red blood cells and blood pressure. Even a form of vitamin D supplement that helps with the digestion of calcium in the body is activated by the kidneys.

Adults suffer kidney disorders when the kidneys sustain damage and lack the ability to work, it transpires. High blood pressure, diabetes, and an array of other chronic (long-term) ailments may result in damage. Kidney ailments may lead to starvation, brittle bones, damage to neurons, and other medical conditions.

### Chronic kidney disease

Chronic renal disease is the most common type of kidney disease. Chronic kidney disease is a condition that lasts a long time and doesn't get better. High blood pressure is often the cause in glomeruli. The glomerular is small vessels in the kidneys where blood is drained. The increased pressure will damage these vessels over time, leading to reduced kidney function.

Eventually, renal function will decline to a stage where it is no longer possible for the kidneys to operate properly. A person would have to go on dialysis in this case. Extra fluid and waste is filtered from the blood by dialysis. Dialysis may be helpful in the treatment of kidney disease, but it is not a cure.

### Kidney stones

Another common kidney problem is kidney stones. Stones form when blood minerals and other substances crystallize in the kidneys and form solid masses. During urination, kidney stones usually emerge from the body. Kidney stones can be very painful to pass, but they rarely cause major issues.

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### Glomerulonephritis

Glomerulonephritis is a glomeruli inflammation. Glomeruli are very small structures in the kidney that filter blood. Infections, medications, and disorders that occur during or shortly after birth (congenital abnormalities) can all result in glomerulonephritis. It's often better on its own.

### Polycystic kidney disease

Polycystic Kidney Disease is a genetic condition that causes a lot of small, fluid-filled cysts to form in kidneys. This can mess with the kidneys and cause them to fail. It's important to remember that individual cysts are pretty common and usually don't cause anything serious.

### Urinary tract infections

Urinary tract infections (UTIs) are bacterial infections in all parts of the urinary system. Most common are urinary tract infections and urethra infection. They're easy to treat and can rarely lead to serious health problems. These infections may then be passed through to the kidneys, resulting in kidney failure if they are not treated.

### Symptoms

Kidney disease is a condition which can be easily overlooked until symptoms become more severe. Early warning signs that may develop kidney disease are the following symptoms: fatigue difficulty concentrating trouble sleeping poor appetite muscle cramping swollen feet and ankles puffiness on my eyes this morning. Dry, scaly skin Frequent urinations, especially during the night.

Signs and symptoms of kidney disease that could indicate disease is advancing to kidney failure include:

- Nausea
- Vomiting
- Loss of appetite
- Changes in urine output
- Fluid retention
- Anemia (red blood cell count decrease)

- Sudden increase in potassium (hyperkalaemia)
- Pericardial inflammation (fluid filled sac that surrounds the heart).

## Diagnosis

The doctor will determine whether have an increased risk of developing kidney disease. Then they'll run some tests to make sure the kidney function is good. These tests may be carried out as follows:

**Glomerular Filtration Rate (GFR):** The purpose of this test is to determine how good kidneys function and establish the stage of kidney disease. Ultrasound and CT scans give the doctor a clear view of the kidney and urinary system. They can tell if the kidney is too big or small, and they can also tell if there are any tumors or other issues with the kidneys.

**Kidney biopsy:** A kidney biopsy is a procedure in which a sample of tissue is taken from the kidney while the patient is asleep.

**Urine test:** The physician may ask for a urine sample to be tested for albumin, a protein that is excreted in the urine due to renal impairment.

**Blood creatinine test:** Creatinine is an excretory substance. It is excreted into the bloodstream as a by-product of the breakdown

of creatine (a molecule deposited in muscle). Blood creatinine levels will rise if the kidneys are not functioning optimally.

## Dialysis

Hemodialysis is a type of dialysis that is performed on the kidneys. Peritoneal dialysis is another type of dialysis. Haemodialysis is the process of pumping blood through a machine that removes waste products and fluids from the blood stream. Peritoneal dialysis refers to the peritoneum, a membrane lining the abdominal wall that serves as a representation of the kidneys.

## CONCLUSION

Each kidney is about the size of a fist and is made up of two bean-shaped organs. They are found just below the rib cage, one on each side of the spine. A kidney can be found on either side of the spine. It takes strong kidneys to keep a healthy body. They are essentially in charge of clearing the blood of impurities, extra water, and other irritants. These poisonous compounds are stored in the bladder and released during urination. The glomerular is small vessels in the kidneys where blood is drained. The increased pressure will damage these vessels over time, leading to reduced kidney function.