

# Healthy Kidneys 12

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## *Polycystic Kidney Disease*

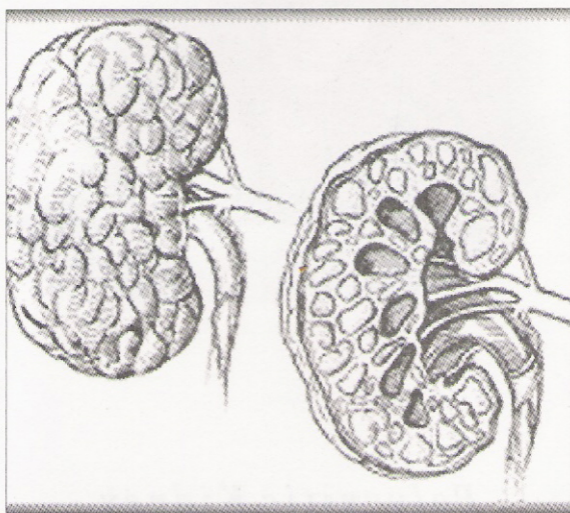
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This booklet will tell you more about this hereditary disease. You will come to know what can be done if anybody contracts this disease. Many points covering the treatment of this disease have also been discussed.

Kidneys are two bean-shaped organs, situated behind the stomach on either side of the vertebral column. Each kidney is capable of sustaining life independently. In other words, a person can have normal life even with one kidney. Kidneys are a part of the urinary system. The urinary system consists of the kidneys, ureters, urinary bladder and the urethra.

The kidneys remove wastes and extra water from the blood to form urine. If these wastes are not removed they can be harmful to the body. They perform other important functions also.

In addition to removing wastes, kidneys release hormone Erythropoietin, release hormone Renin, release active form of vitamin D, and help in balancing the body fluid by maintaining the right amount of water in the body.



## **Polycystic Kidney Disease (PKD)**

PKD is a genetic disorder characterized by growth of numerous cysts in the kidneys. The cysts are filled with fluid. PKD cysts slowly replace the mass of the kidneys, reducing kidney function and leading to kidney failure.

### **Cysts**

A cyst in the kidney begins as blister. Cysts can occur anywhere on the length of the nephron. Although polycystic means many cysts, not every nephron forms cysts. The fluid

inside the cysts often reflects the area in the nephron from which the cyst arose.

Approximately 70 percent of cysts detach from the nephron when they are still very small. Over time the cysts enlarge and can become filled with clear fluid or fluid that contains blood or white blood cells.

In general, cysts cause problems because of their size and the space they occupy. The size of the kidneys is directly related to how many and how big the cysts are. For example, people with kidneys over 15 cm (6 inches) are more likely to have pain than people with smaller kidneys.

## Symptoms of PKD

PKD may not have any symptoms. The most common symptoms are pain in the back and the sides (between the ribs and hips) and headaches. Other symptoms are:

- Urinary tract infections - burning during urination, heaviness in abdomen
- Hematuria (Blood in urine)

## Associated conditions

- Liver and pancreatic cysts
- Headache
- Kidney stones
- Aneurysms (bulges in the walls of blood vessels) in the brain
- Diverticulosis (small sacs in the colon)

## PKD & kidneys

The cysts of PKD is filled with fluid. PKD cysts can slowly replace much of the mass of the kidneys, reducing kidney function and leading to kidney failure, in long term.

## Diagnosis of PKD

- Sonography of kidneys* : Sonography of the kidneys is the best way for diagnosis of PKD. In most of the cases, person's physical condition appears normal for many years so the disease may go unnoticed. Physical examination of blood and urine may not lead to diagnosis.
- Family medical history* : Family history of PKD also help to strengthen the diagnosis, as the disease is inherited.





## **Treatment of PKD**

*PKD has no cure .*

### **The treatments include:**

- Medicine to reduce pain.
- Treatment of high blood pressure is important because control of high BP retards deterioration of kidney function.
- Antibiotics to resolve urinary tract infections.
- If kidneys fail because of PKD, dialysis or transplantation is done to replace functions of failed kidneys.

## **Prevention of PKD**

PKD can be prevented if genetic counseling is done before marriage. If both husband and wife carry this gene there is 100% chance that their child will have this disease.

## **Prevention of kidney failure because of PKD**

We cannot prevent kidney failure taking place because of PKD. We can take help of genetic counseling, preventive tests and reduce the speed of damage in the kidneys.

### **Points to remember :**

- PKD is hereditary.
- PKD has no cure.
- PKD has no specific treatment.
- Patients of PKD with high blood pressure should have good control of high blood pressure so that deterioration of kidney function can be retarded.
- PKD is diagnosed through abdominal sonography.

***Please also refer the following information booklets from India Renal Foundation for more information.***

- Choosing Your Treatment
- Haemodialysis
- Peritoneal Dialysis
- Transplantation
- Diabetes & Kidney Failure
- High Blood Pressure and Kidney Failure
- Kidney Failure and Anemia
- Kidney stones and Kidney Failure
- Benign Prostate Disease
- Prostate Cancer
- Urinary Tract Infection
- Urinary system & Kidney Stones
- Cystine & Struvite Stones
- Calcium & Uric Acid Stones
- Treatment of Kidney Stones



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