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Nephrology

August 2022 MIPHA Presentation

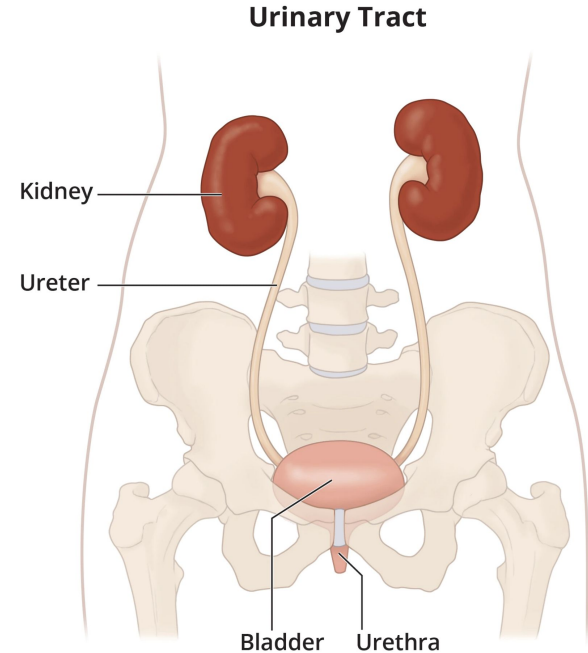
What is Nephrology?

According to the American College of Physicians, “*Nephrology is the subspecialty of internal medicine that focuses on the diagnosis and treatment of diseases of the **kidney**.*”

Nephrologist - a doctor that specializes in treating the conditions of the kidney

What is the kidney?

- Two kidneys in body
- Located below ribcage on both sides of spine
- Remove excess fluid and wastes from blood
- Maintain balance of salts, water, minerals (calcium, sodium, phosphorus, potassium)
- Release hormones that make red blood cells, control blood pressure, maintain bone health



Chronic Kidney Disease

Chronic Kidney Disease - aka Chronic Kidney Failure; gradual loss of kidney function

- Risk Factors - diabetes, obesity, heart disease, high blood pressure
- Symptoms
 - **Early Stage:** no symptoms, can be detected from urine sample
 - **Later Stage (End-stage Renal Disease/Renal Failure):** blood in urine, frequent urination at night, insomnia, muscle cramps, headaches, weight loss, poor appetite, shortness of breath
- Treatment: dialysis, kidney transplant

Dialysis



Dialysis - procedure to remove wastes and excess fluid from the blood

- **Hemodialysis** - blood is removed from the patient and cleaned blood is returned in the patient; 3-5 hour procedure; 4-7 times per week; can be done at home
- **Peritoneal dialysis** - tiny blood vessels inside the peritoneum filter blood with the help of a dialysis solution composed of water, salt and other additives; two types
 - **Automated peritoneal dialysis** uses a machine called a cycler.
 - **Continuous ambulatory peritoneal dialysis (CAPD)** takes place manually.

Nephrologist

- Specialist in internal medicine (kidney)
- Graduate from medical school with 3 years in residency in internal medicine
- Pass the American Board of Internal Medicine (ABIM) certification exam
- Complete a two- to three-year fellowship in nephrology
- Tasks:
 - Perform blood and urine tests
 - Order kidney ultrasound
 - Perform kidney biopsy
 - Diagnose the cause of kidney failure and prescribe a treatment plan

Sources

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