

Medical academy named after
S.I. Georgievsky of
Vernadsky CFU



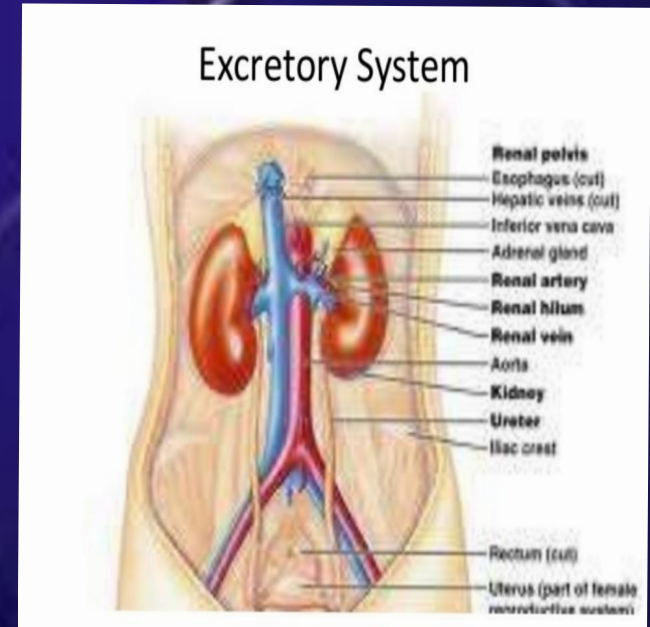
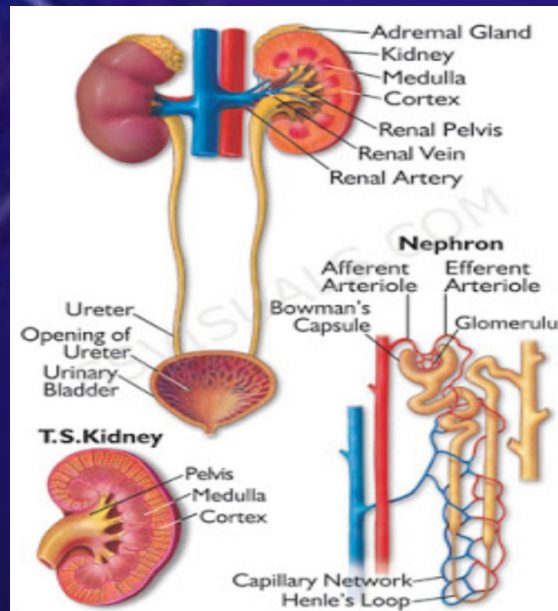
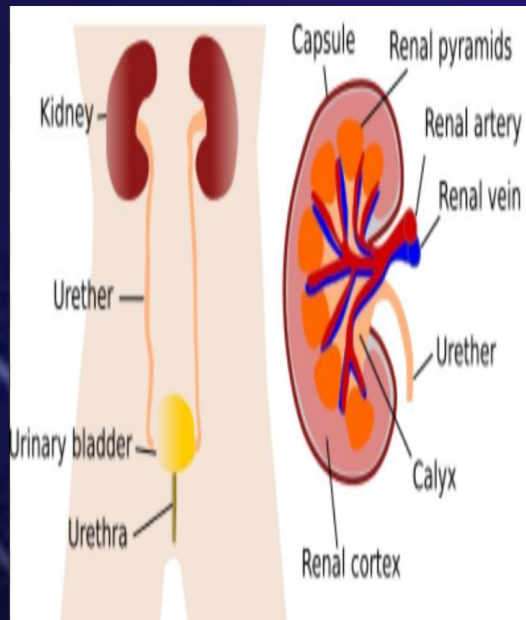
View on : Phylogenetic disorders of excretory system

Submitted by:
Sanaha 195B

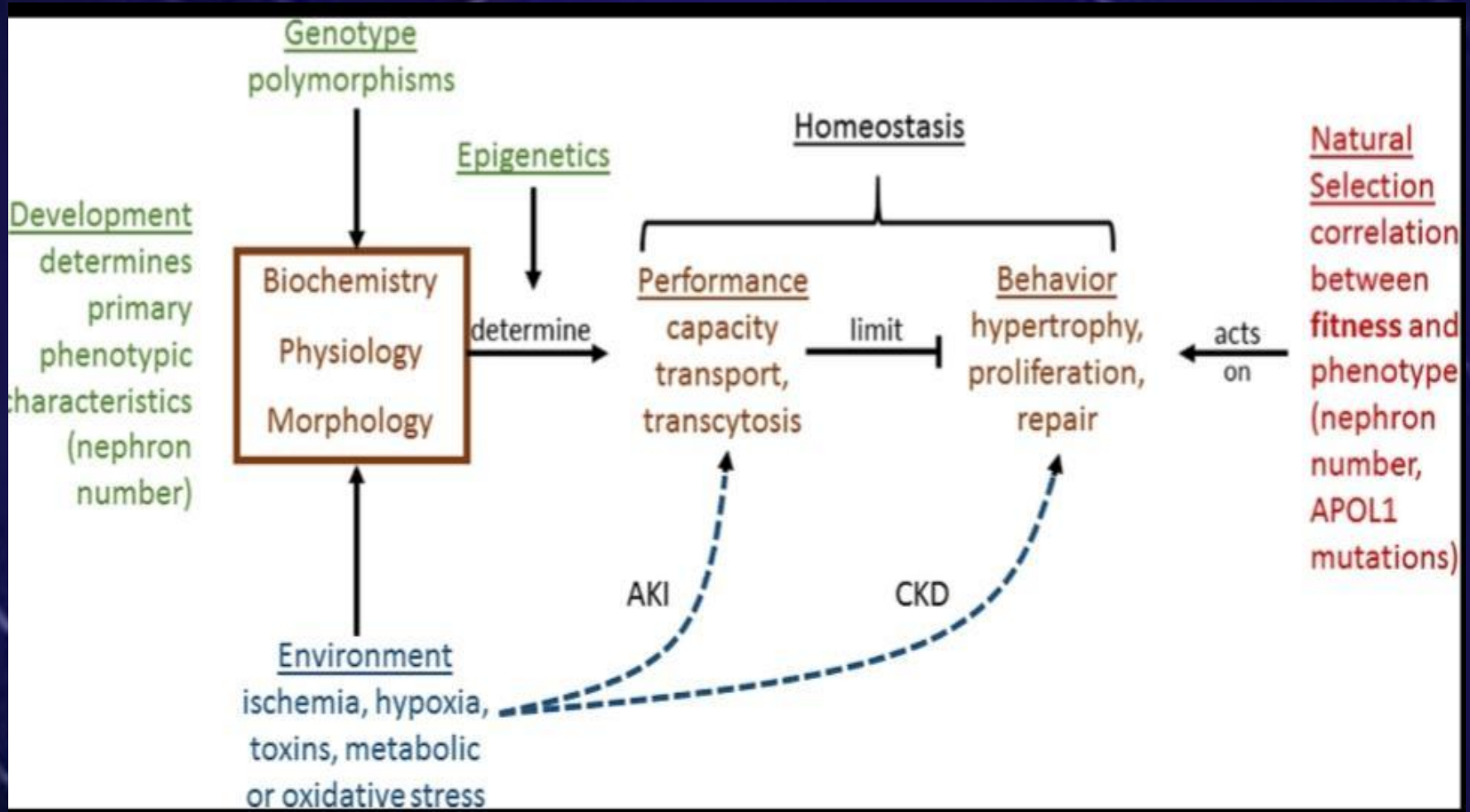
Guided by:
Anna Zhukova

Excretory system

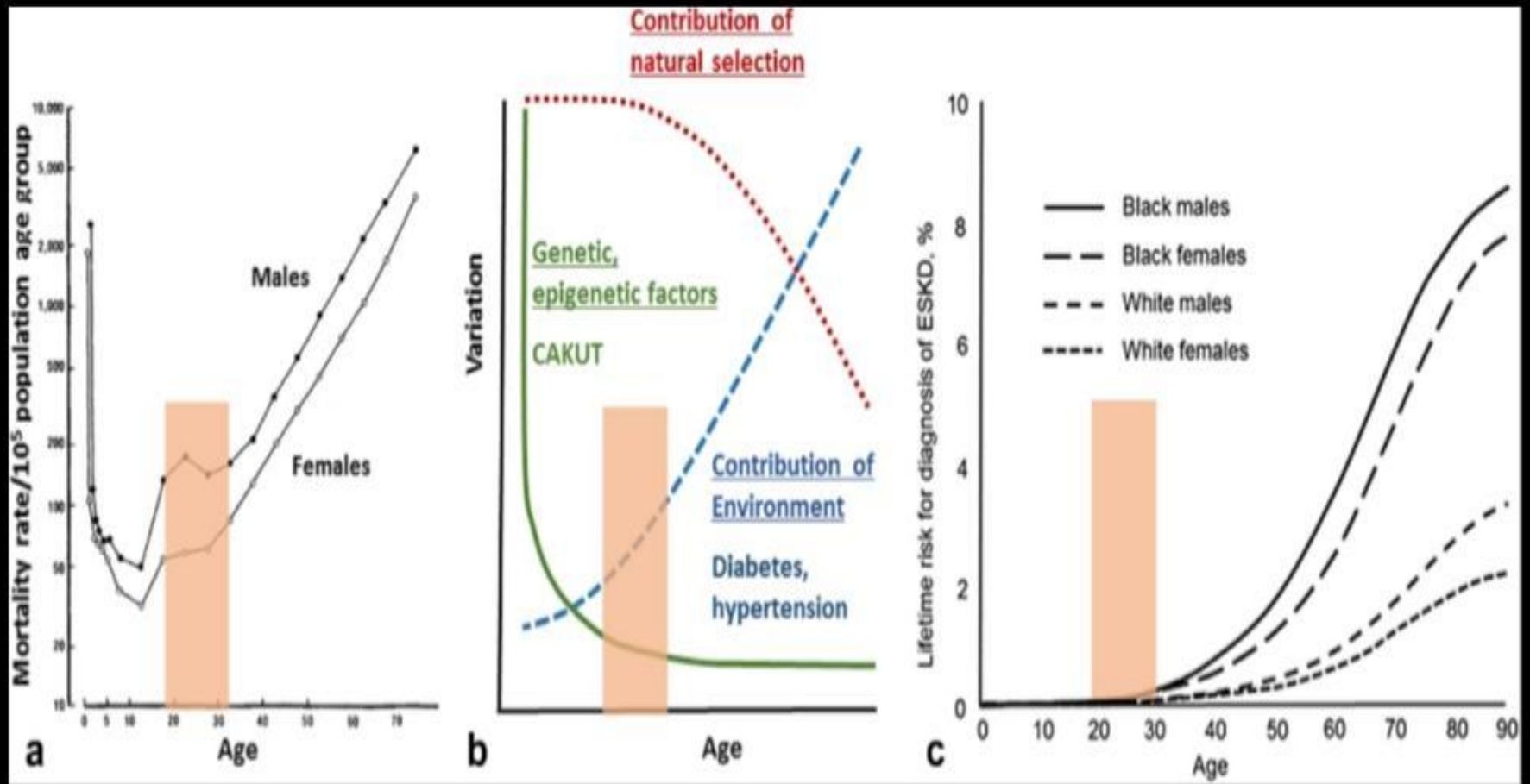
The excretory system is the system of an organism's body that performs the function of excretion, the bodily process of discharging wastes. The Excretory system is responsible for the elimination of wastes produced by homeostasis.



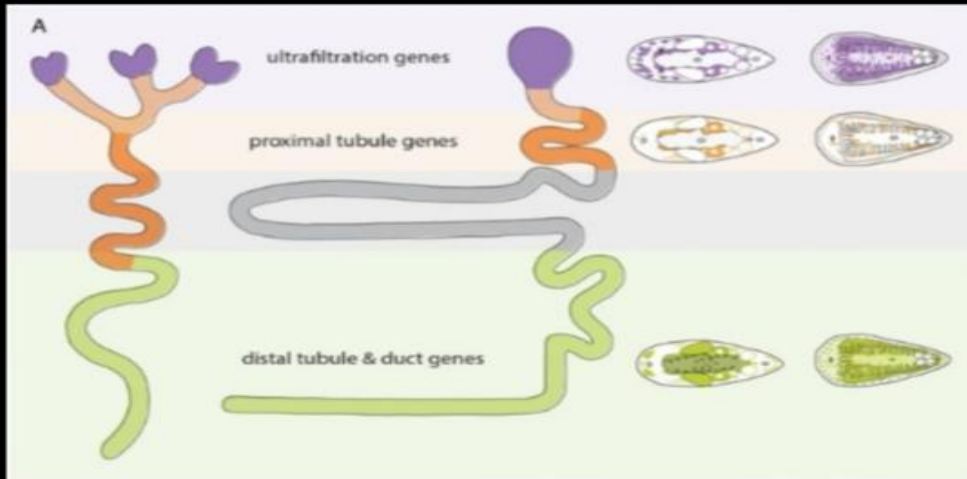
Evolutionary Nephrology



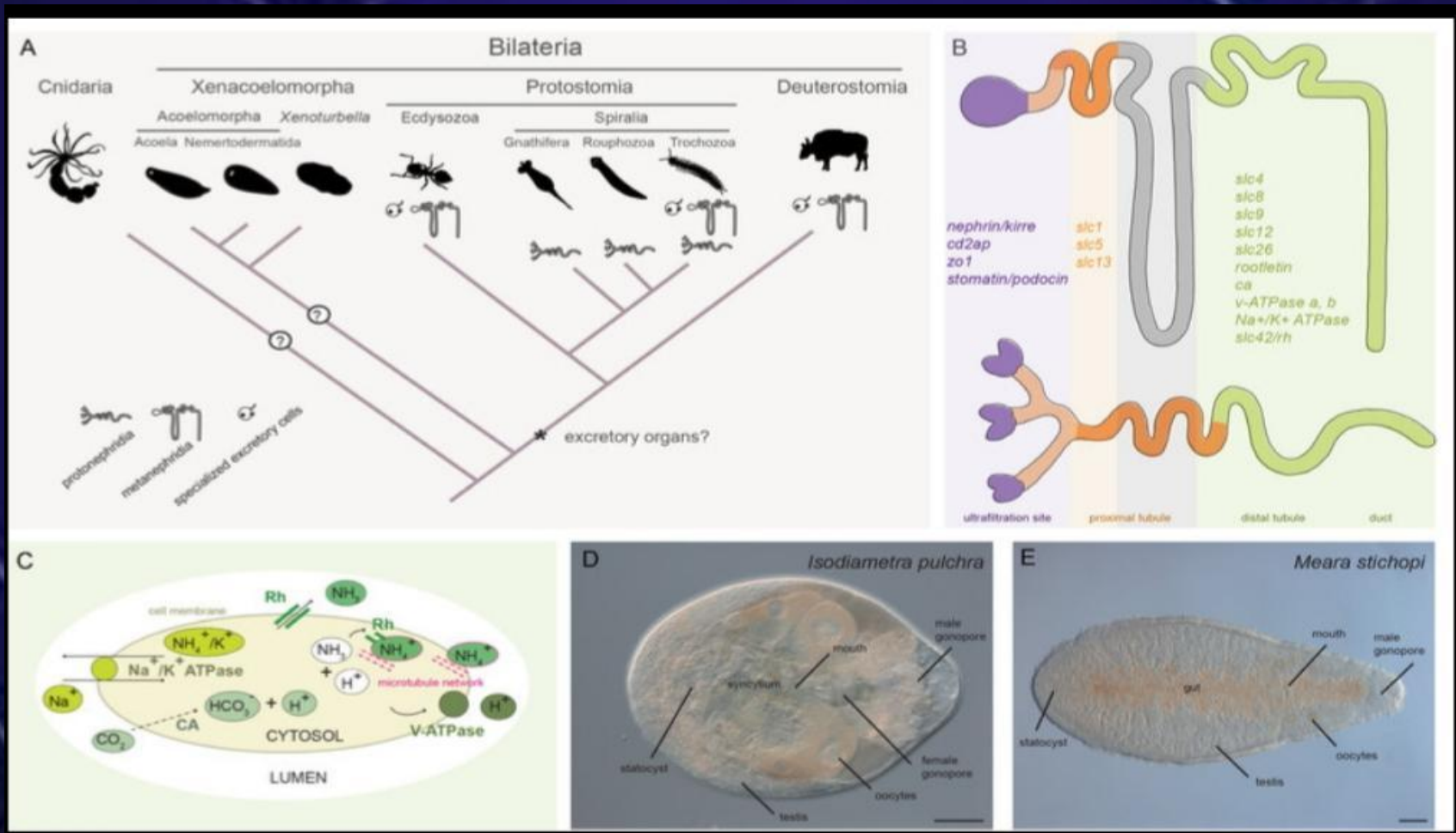
Evolutionary Nephrology



Excretion through digestive tissue predates the evolution

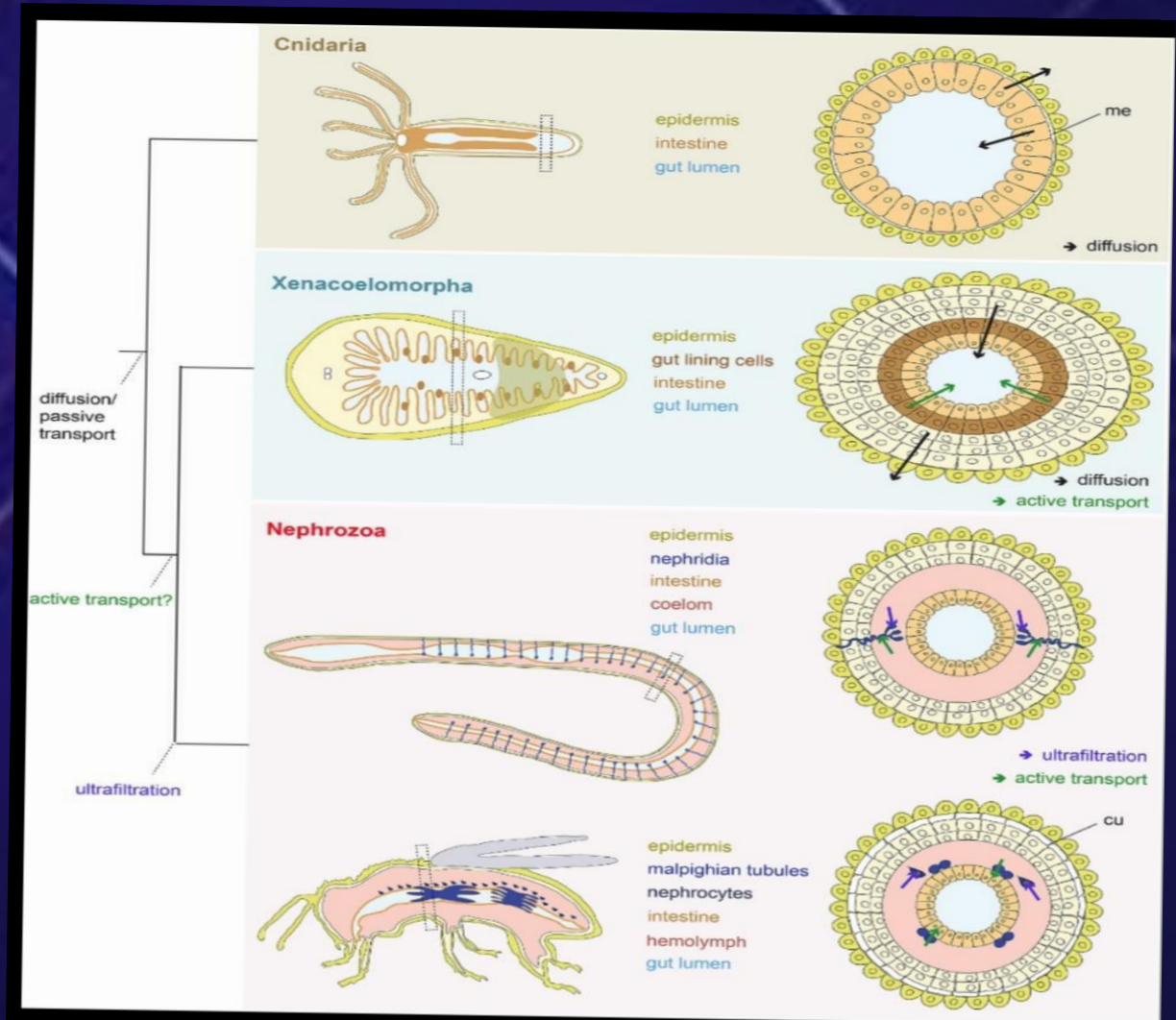


Phylogenetic distribution of Excretory system



Evolution of Excretory mechanism

Illustration of the proposed direction fluxes in cnideria and Xenocoelomorpha and evolution of active ammonia transport and ultra filtration mechanism.

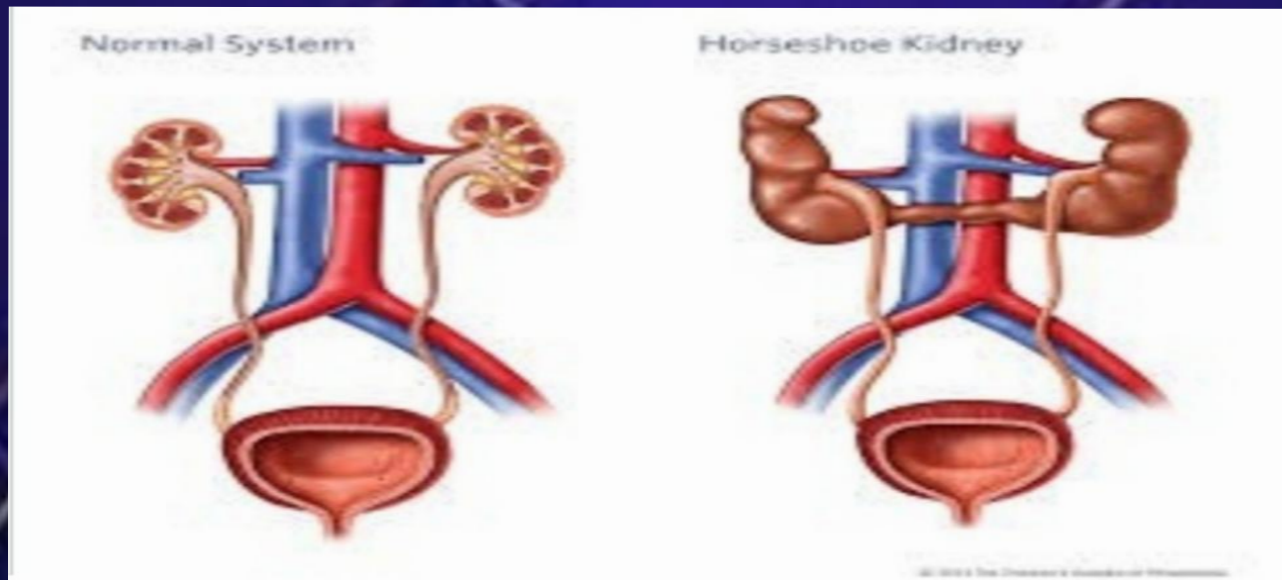


Causes

- Renal injury
- Urinary stones
- Wilm's tumor
- Tuberculosis
- Renal cell carcinoma
- Cystitis
- Bladder tumour
- Urinary bilharziasis
- BPH, carcinoma prostate
- Renal infarct
- Glomerulonephritis
- Blood dyscrasias

Horseshoe kidney

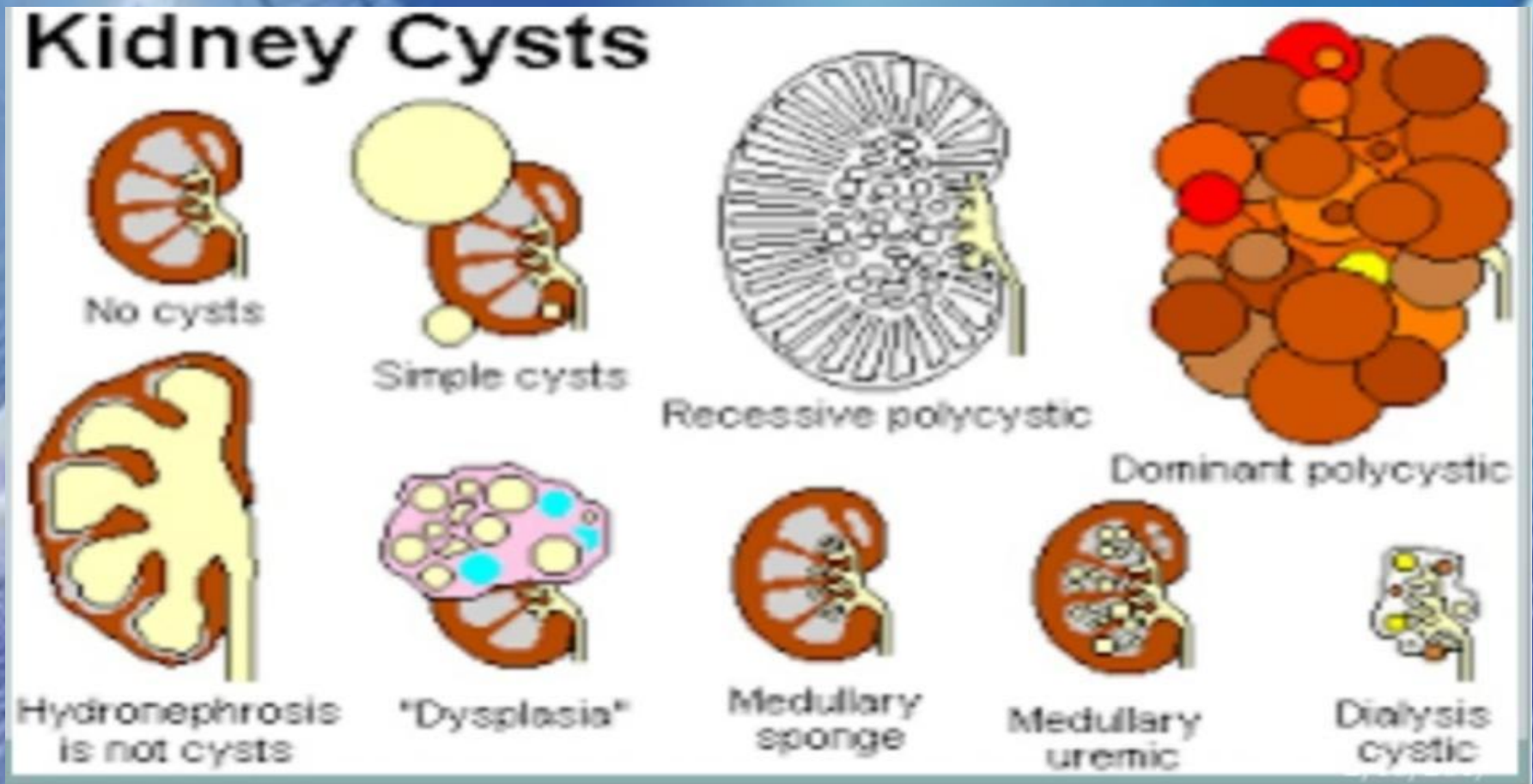
Horseshoe kidney occurs in about 1 in 500 children. It occurs during fetal development as the kidneys move into their normal position. With horseshoe kidney, as the kidneys of the fetus rise from the pelvic area, they become attached (“fuse”) together at the lower end or base.



Kidney cysts

Kidney cysts are almost always benign (not cancerous)

Some people have kidney cysts caused by an inherited disease called polycystic kidney disease (PKD).

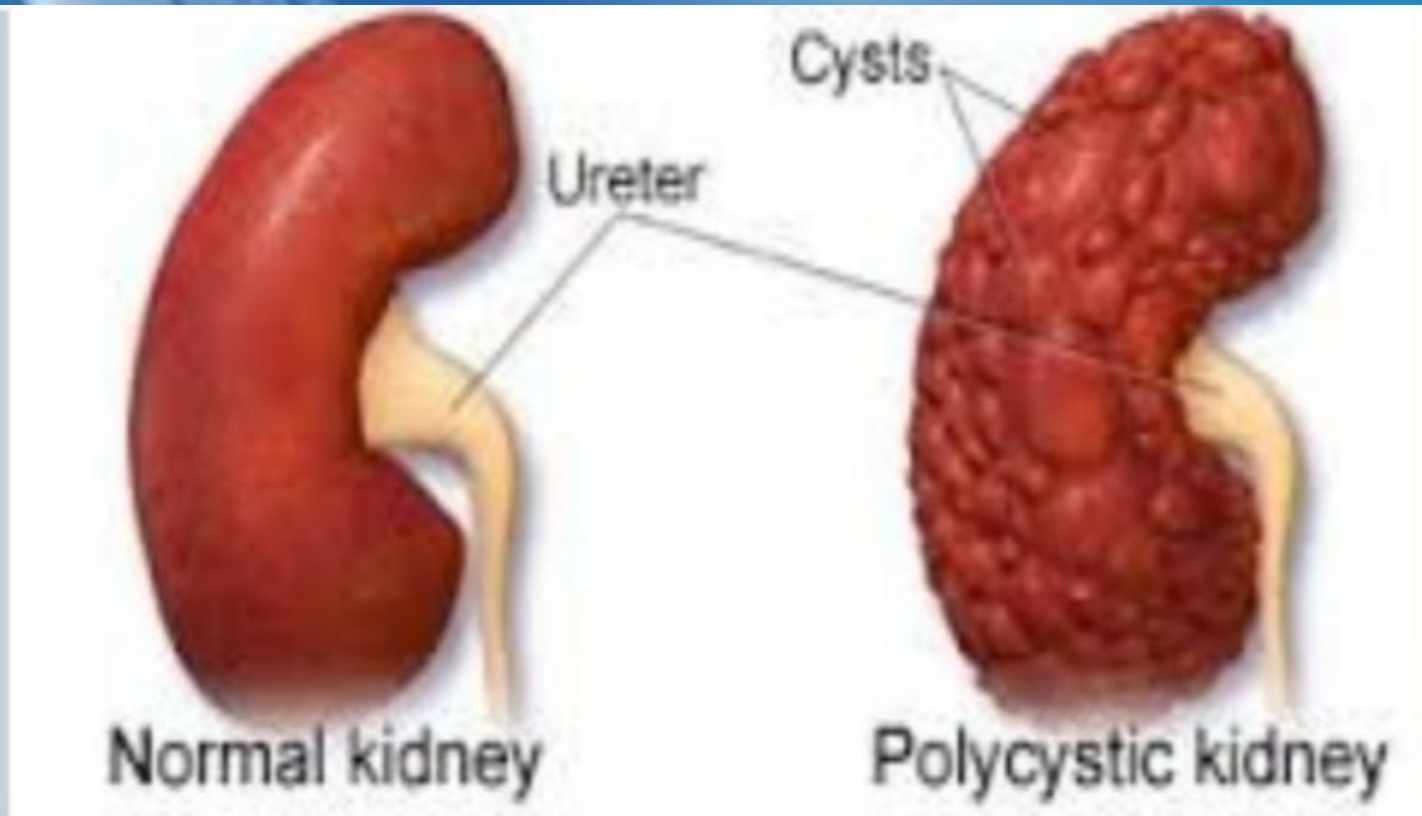


Kidney cysts type

- **Genetic:**
 - Adult polycystic kidney disease (Autosomal dominant)
 - Infantile polycystic kidney disease (Autosomal recessive)
- **Nongenetic** – Simple cyst, multicystic kidney, medullary sponge kidney.
- **Acquired renal cystic kidney** may develop in patient on long term dialysis.

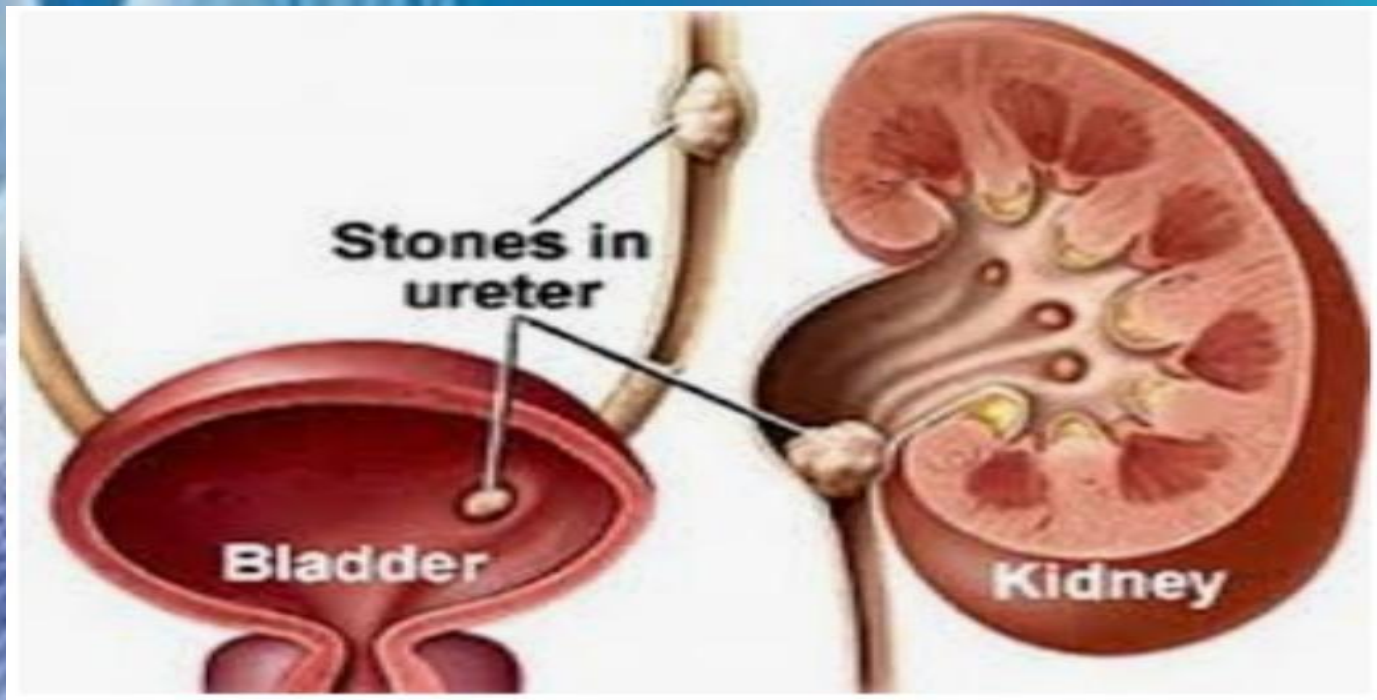
Polycystic kidney disease

Polycystic kidney disease (PKD) is an inherited disorder in which clusters of cysts develop primarily within your kidneys, causing your kidneys to enlarge and lose function over time. Cysts are noncancerous round sacs containing fluid. The cysts vary in size, and they can grow very large.



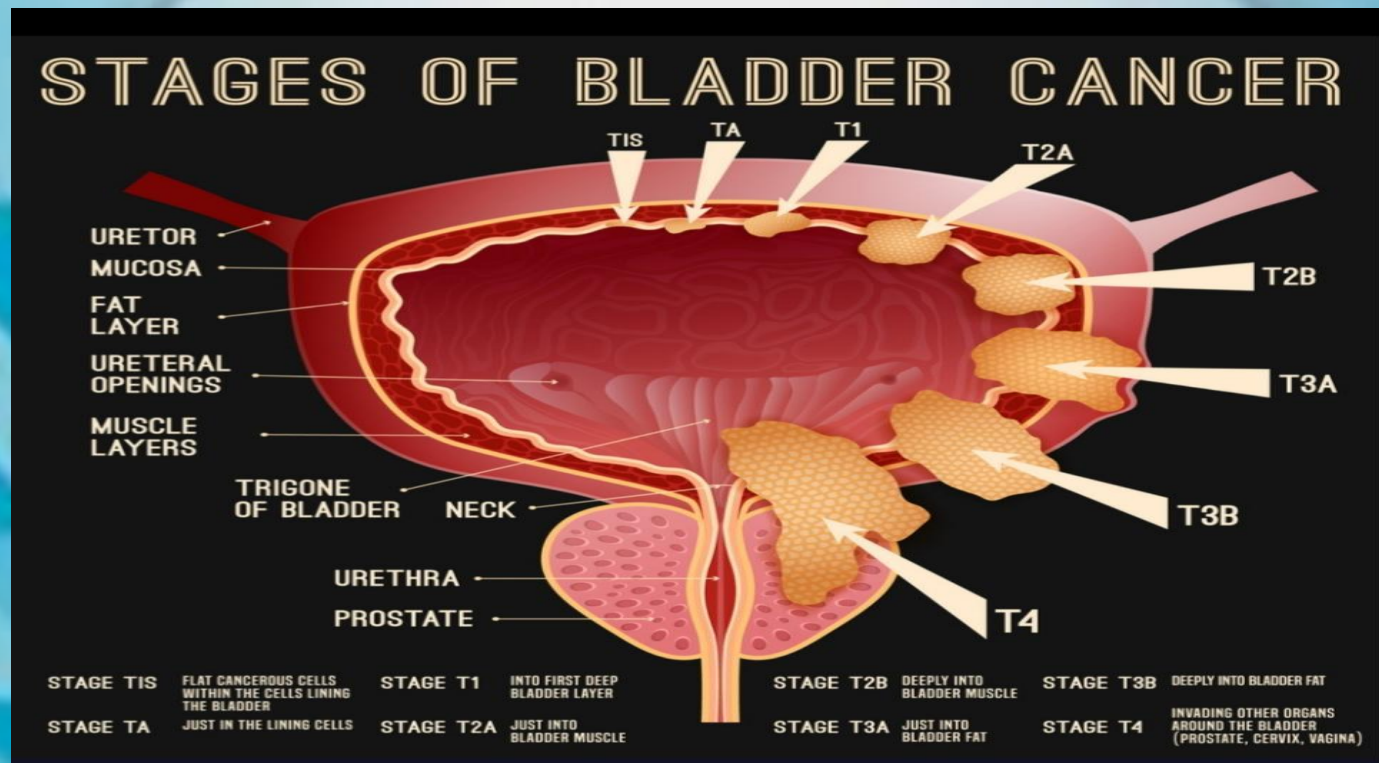
Renal Calculi/Kidney stone

Kidney stones (also called renal calculi, nephrolithiasis or urolithiasis) are hard deposits made of minerals and salts that form inside your kidneys. Diet, excess body weight, some medical conditions, and certain supplements and medications are among the many causes of kidney stones.



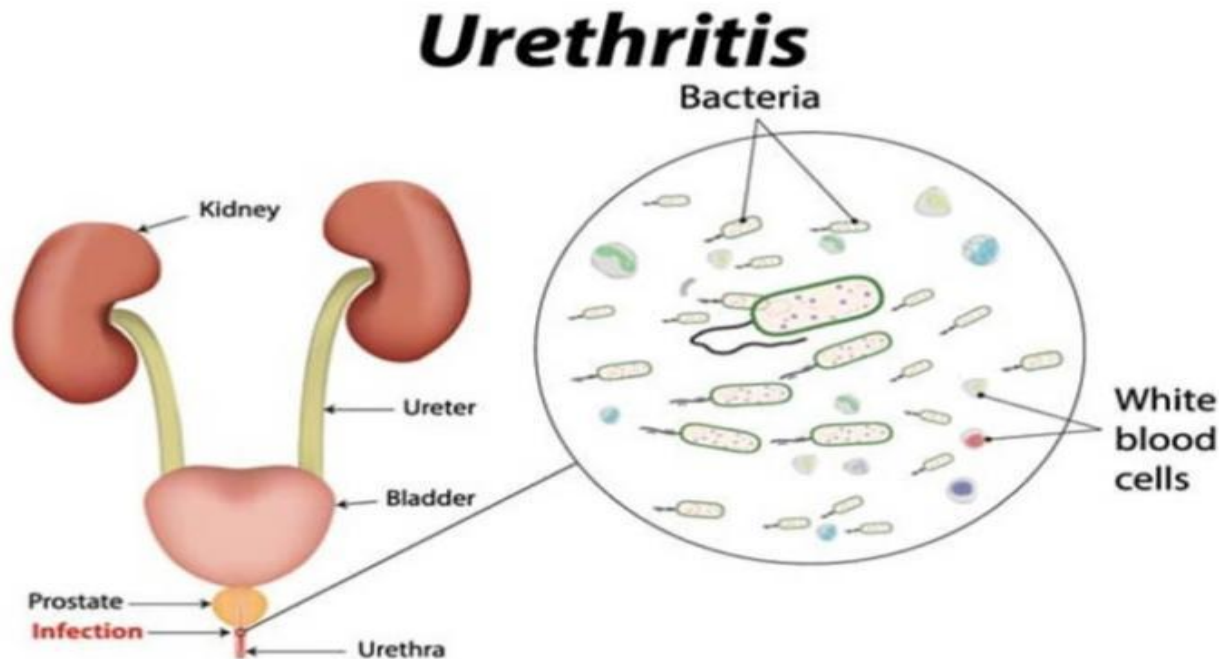
Bladder Cancer

Bladder cancer is any of several types of cancer arising from the tissues of the urinary bladder. It is a disease in which cells grow abnormally and have the potential to spread to other parts of the body. Symptoms include blood in the urine, pain with urination, and low back pain.



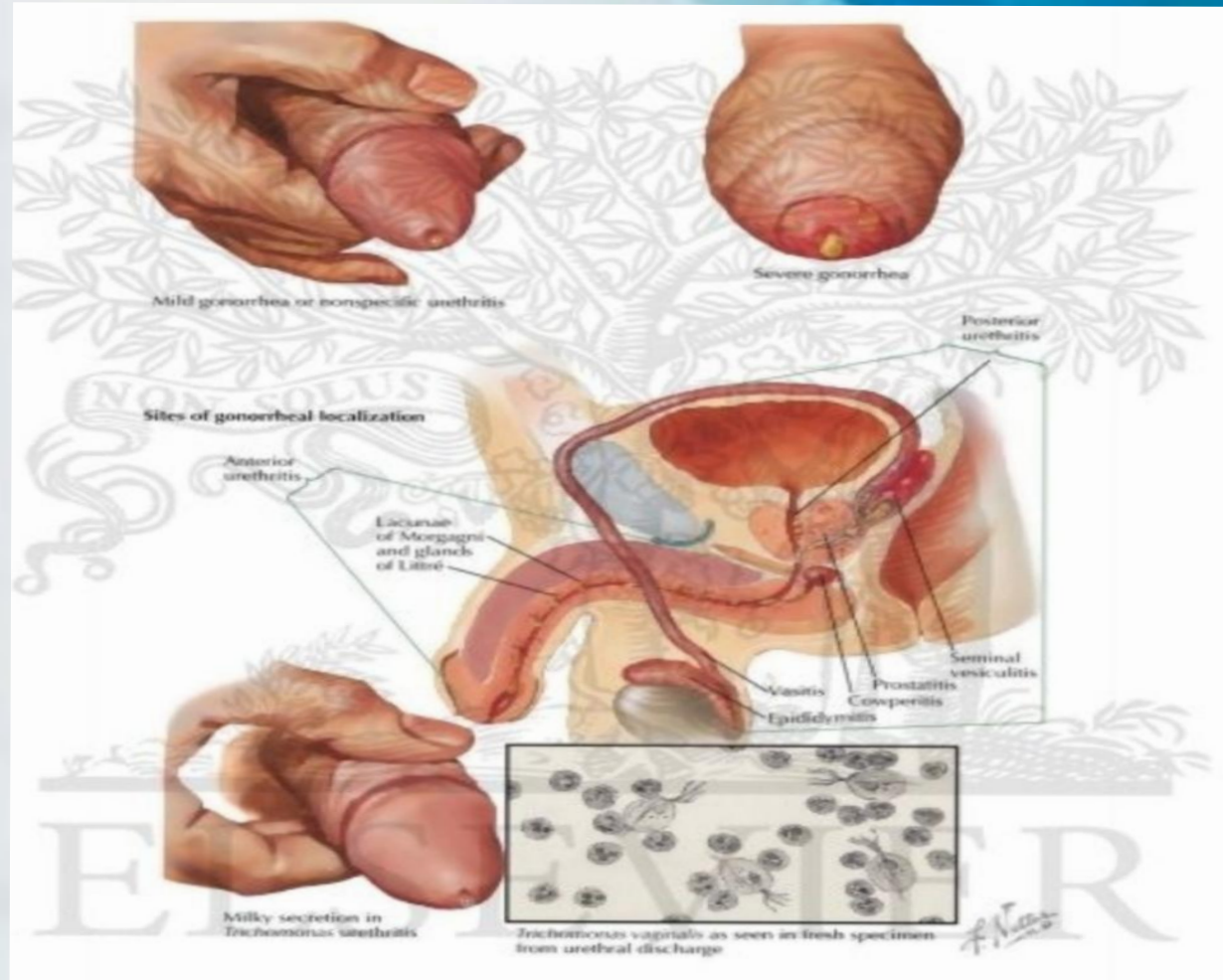
Urethritis

Urethritis is inflammation of the urethra. That's the tube that carries urine from the bladder to outside the body. Pain with urination is the main symptom of urethritis. Urethritis is commonly due to infection by bacteria.



Urethritis in men

Urethritis is a condition in which the urethra, or the tube that carries urine from the bladder to outside the body, becomes inflamed and irritated. Semen also passes through the male urethra. Urethritis typically causes pain while urinating and an increased urge to urinate.



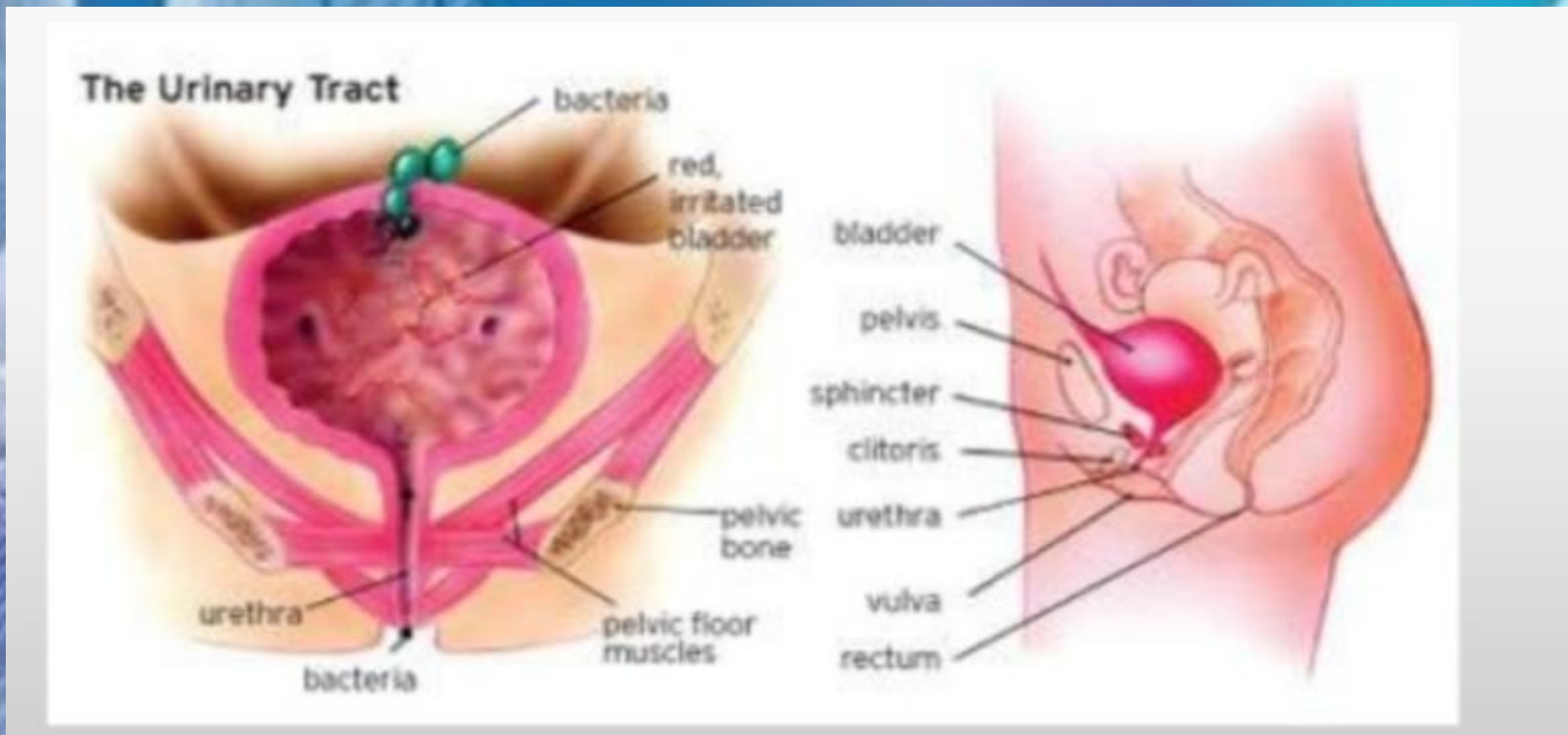
Urethritis in women

Urethritis occurs when the urethra is red and swollen (inflamed). The urethra is the tube that passes urine from the bladder to outside the body. The urethra can get swollen and cause burning pain when you urinate.



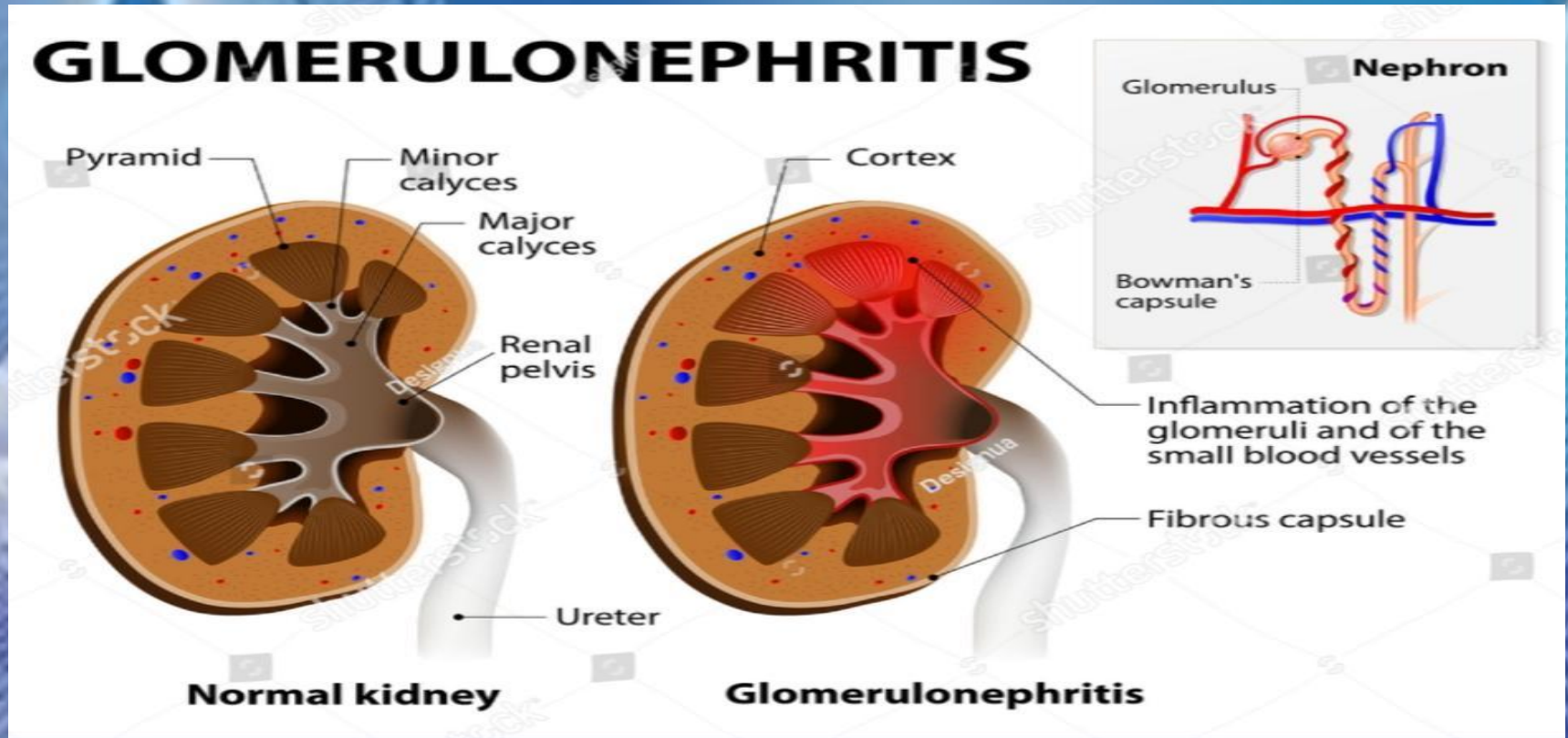
Cystitis

Cystitis is an inflammation of the bladder. Inflammation is where part of your body becomes irritated, red, or swollen. In most cases, the cause of cystitis is a urinary tract infection (UTI). A UTI happens when bacteria enter the bladder or urethra and begin to multiply.



Glomerulonephritis

Glomerulonephritis is a group of diseases that injure the part of the kidney that filters blood (called glomeruli). Other terms you may hear used are nephritis and nephrotic syndrome.



thank
you