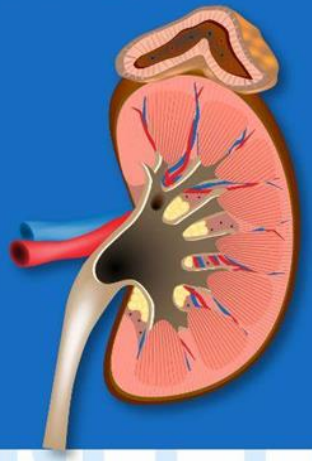
EXCRETORY PRODUCTS & THEIR ELIMINATION - L2



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ANUSHRI MA'AM

PHYSICS | 4:00 PM

SACHIN SIR

ZOOLOGY | 5:00 PM

PANKHURI MA'AM

BOTANY | 5:00, 6:00 PM

PUSHPENDU SIR

ZOOLOGY | 6:00 PM

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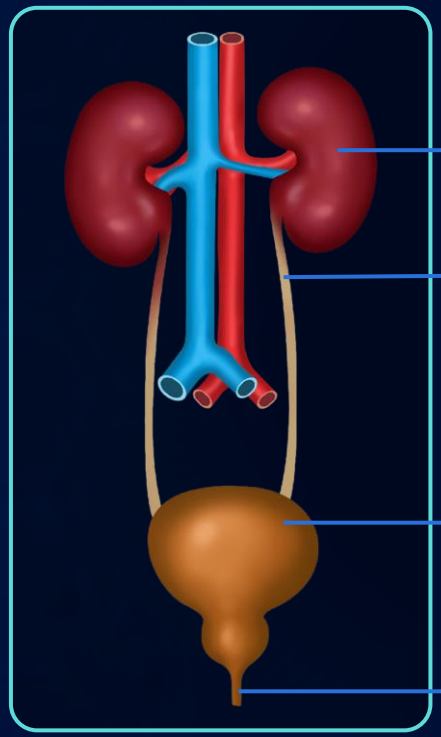
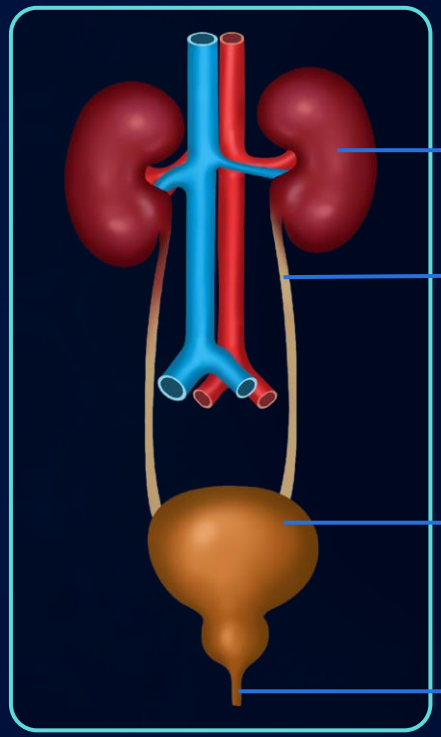
LINK IN DESCRIPTION

https://t.me/neetaakashdigital

The Human Excretory System



The Human Excretory System

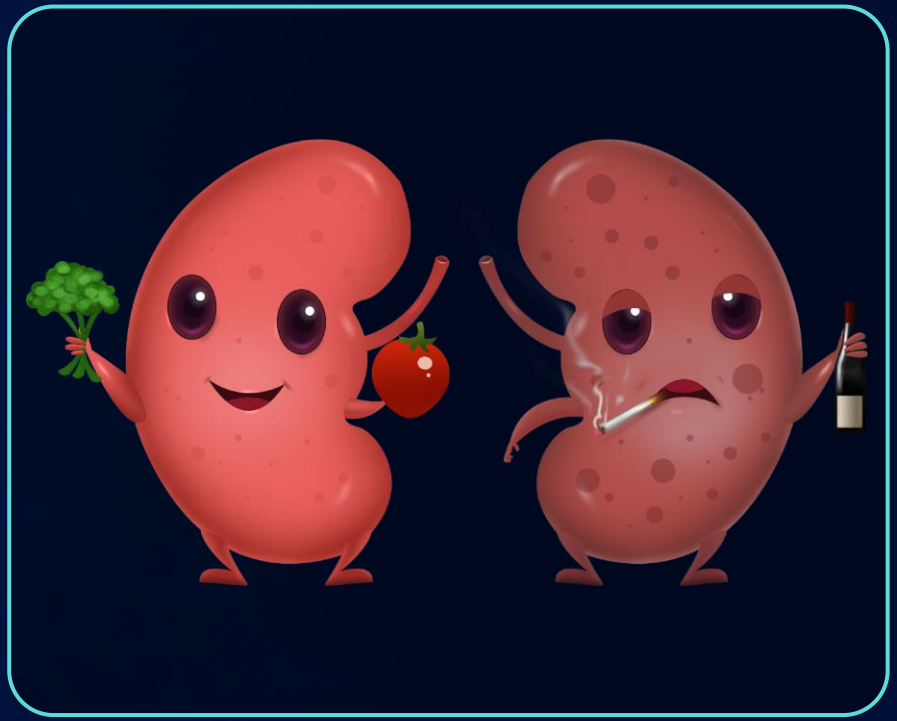


Why do we have two kidneys?

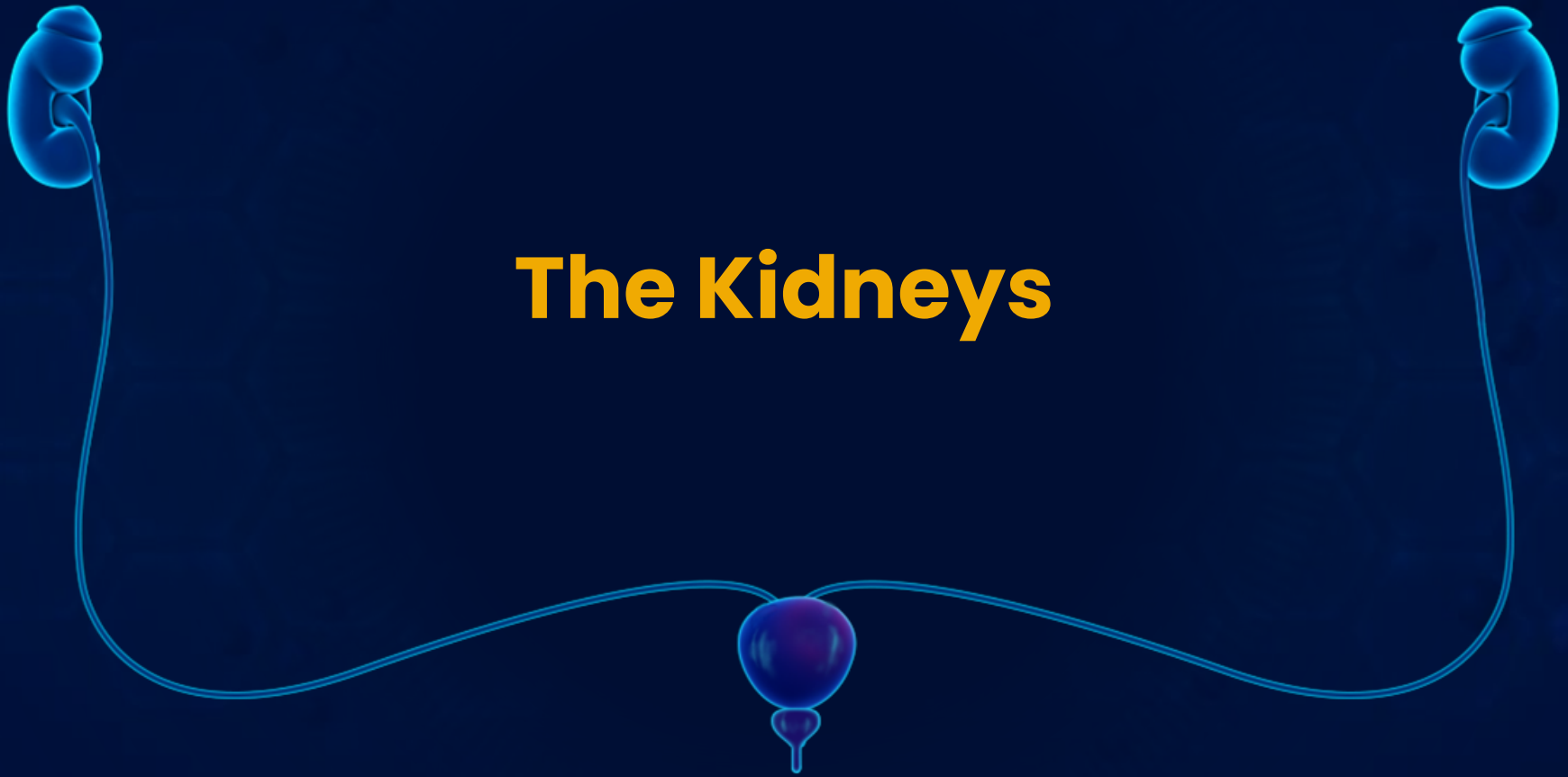
How do Kidney Donors Survive?

Do we really need two kidneys?

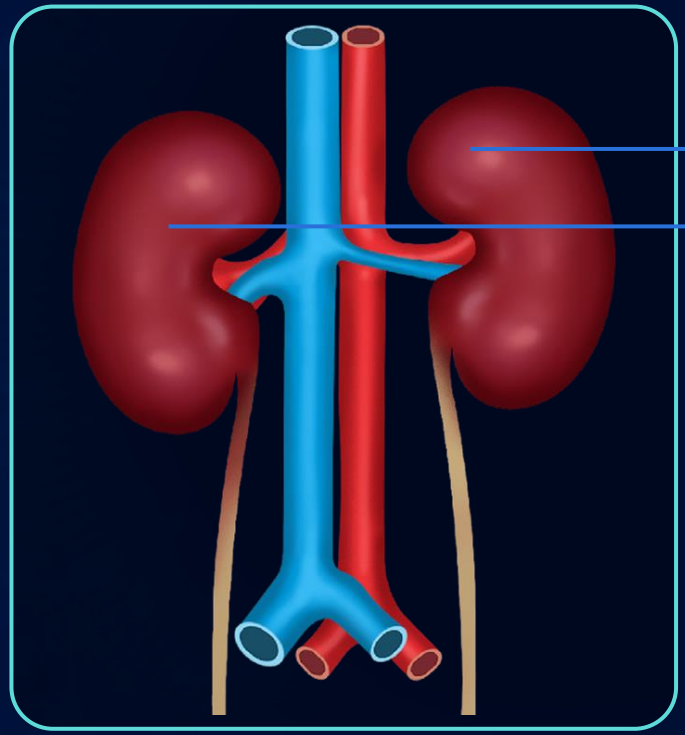
Do we need two kidneys?



The Kidneys

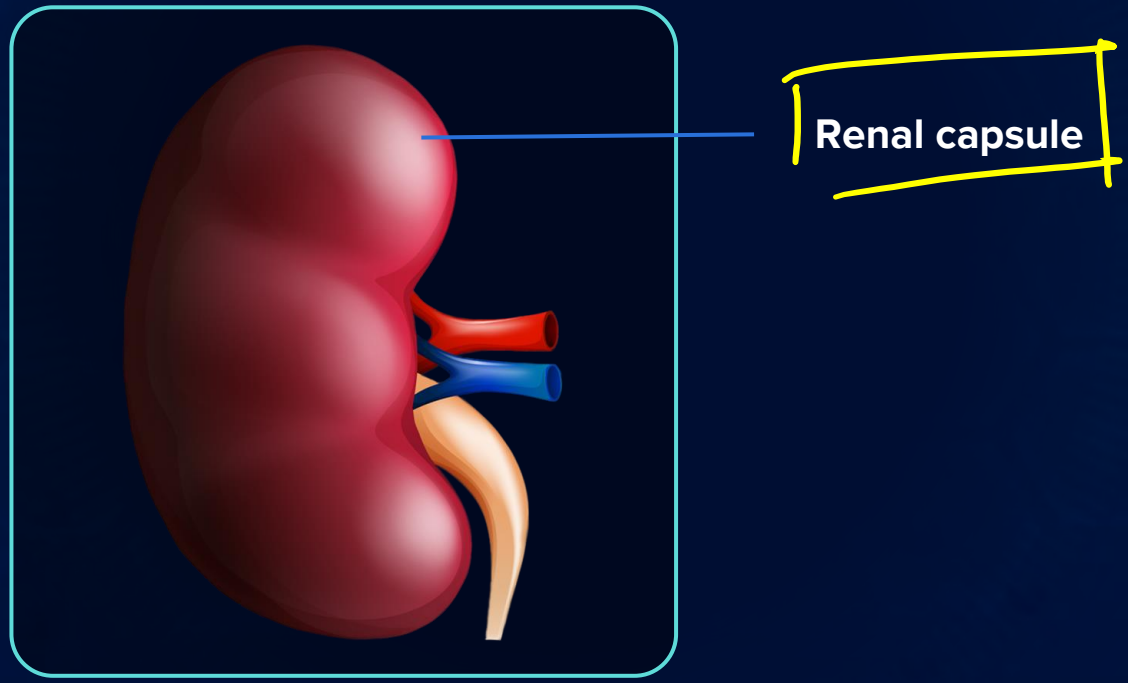


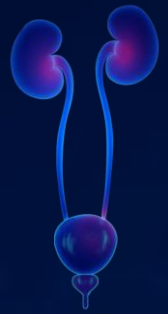
The Kidneys



The Kidneys

Outer layer

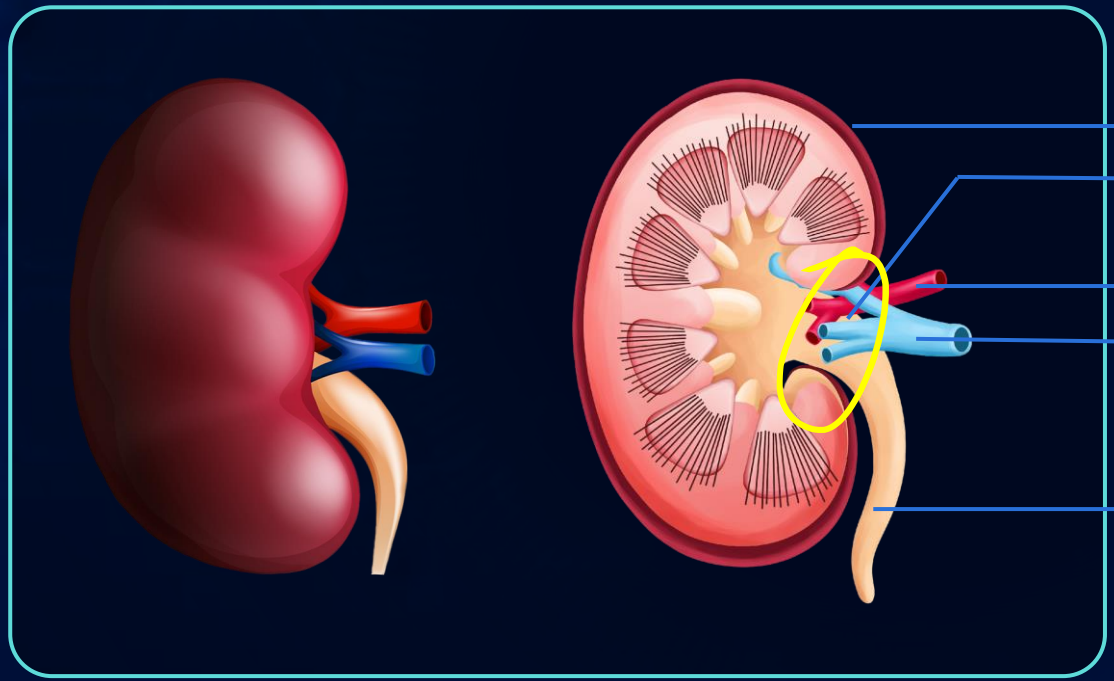




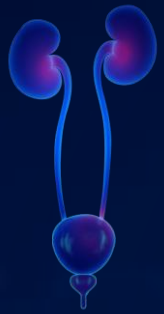
The Kidneys

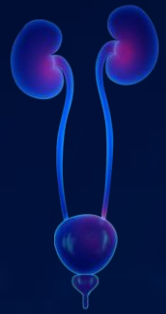
Hilum

- Entry point of the ureter, blood vessels, and nerves



The Kidneys

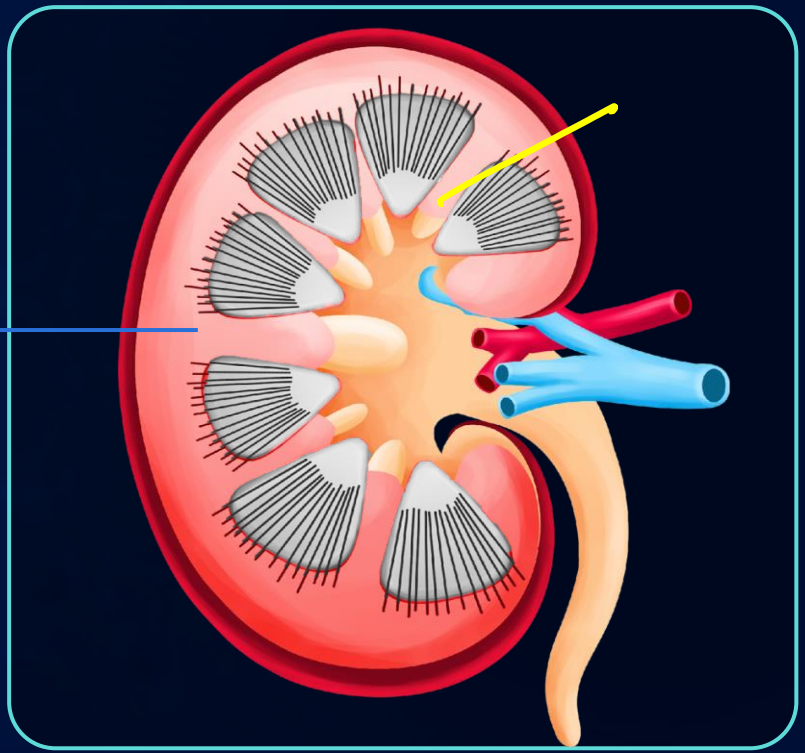




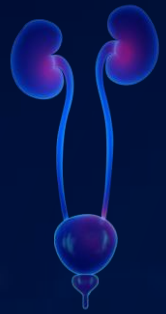
The Kidneys

The Kidneys

Outer cortex



Cortex

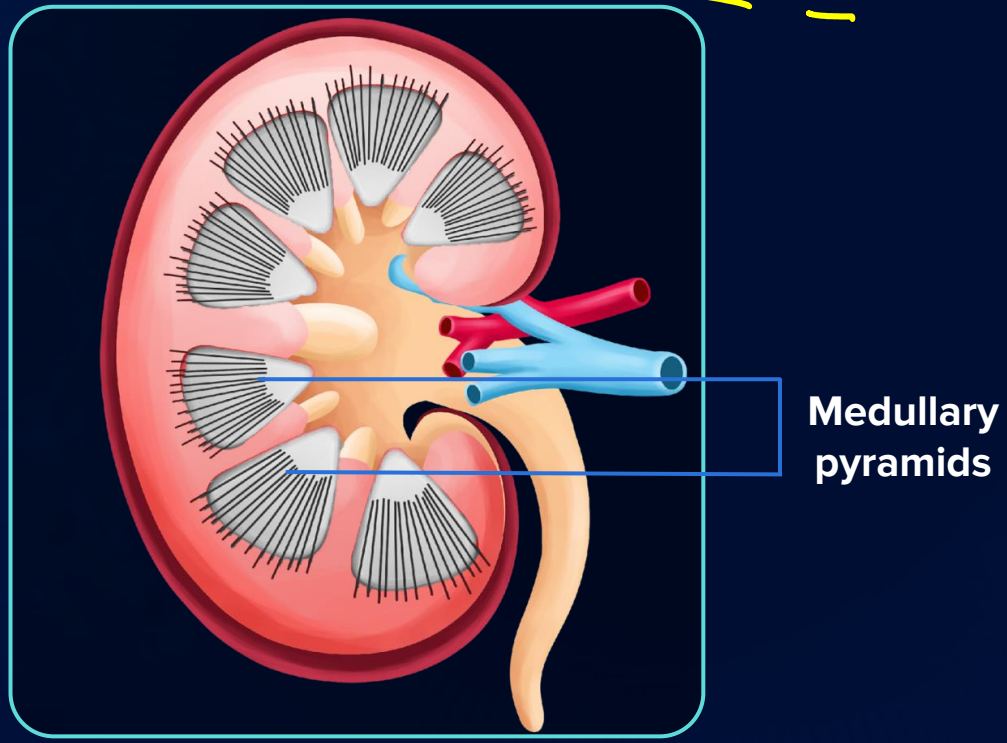


The Kidneys

The Kidneys

Medulla

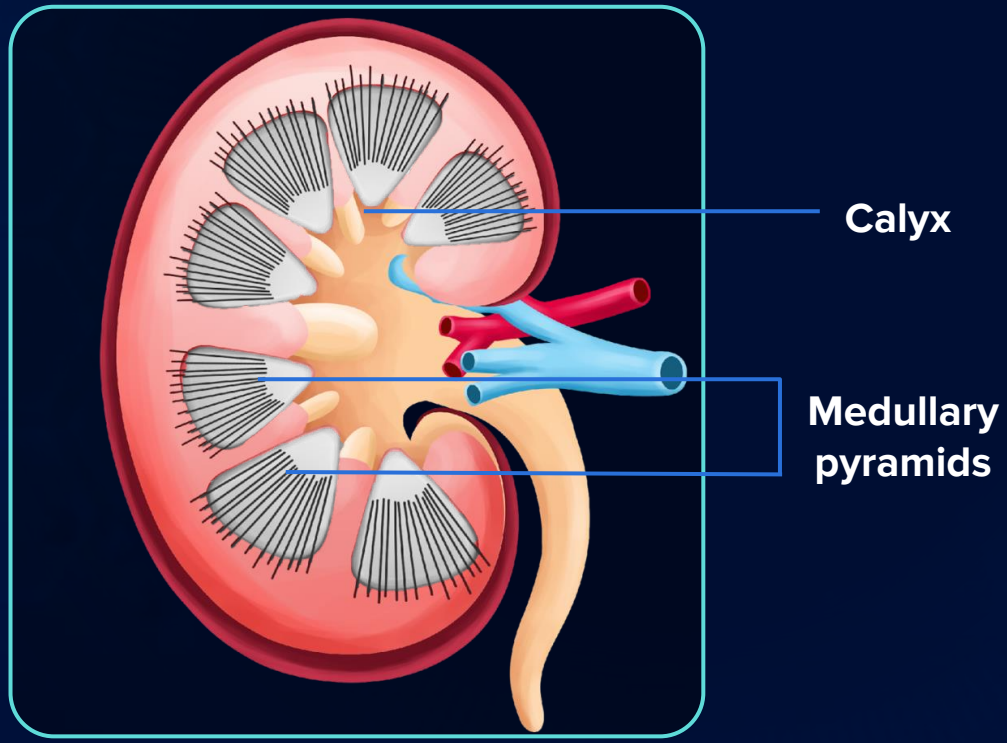
- Divided into the conical **medullary pyramids**



The Kidneys

Medulla

- Divided into the conical **medullary pyramids**



The Kidneys

Medulla

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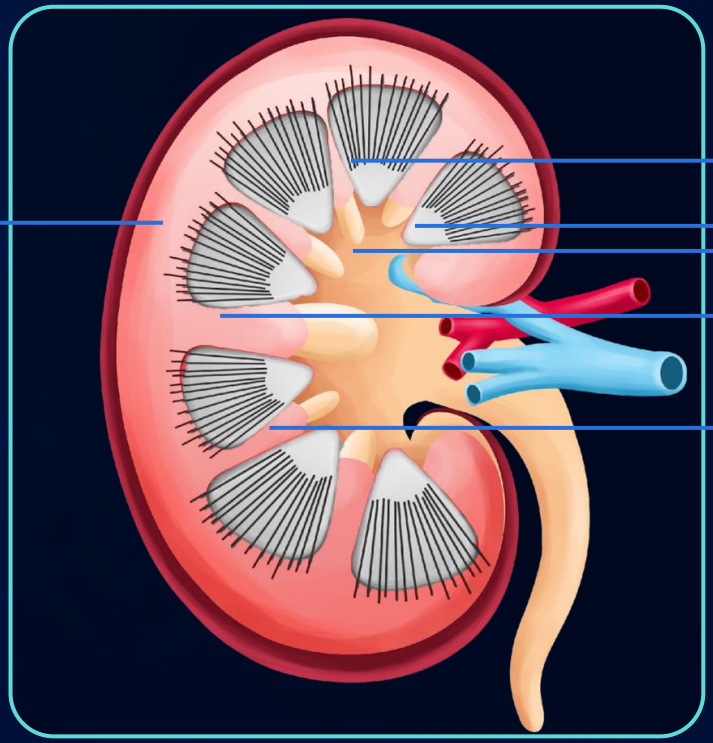
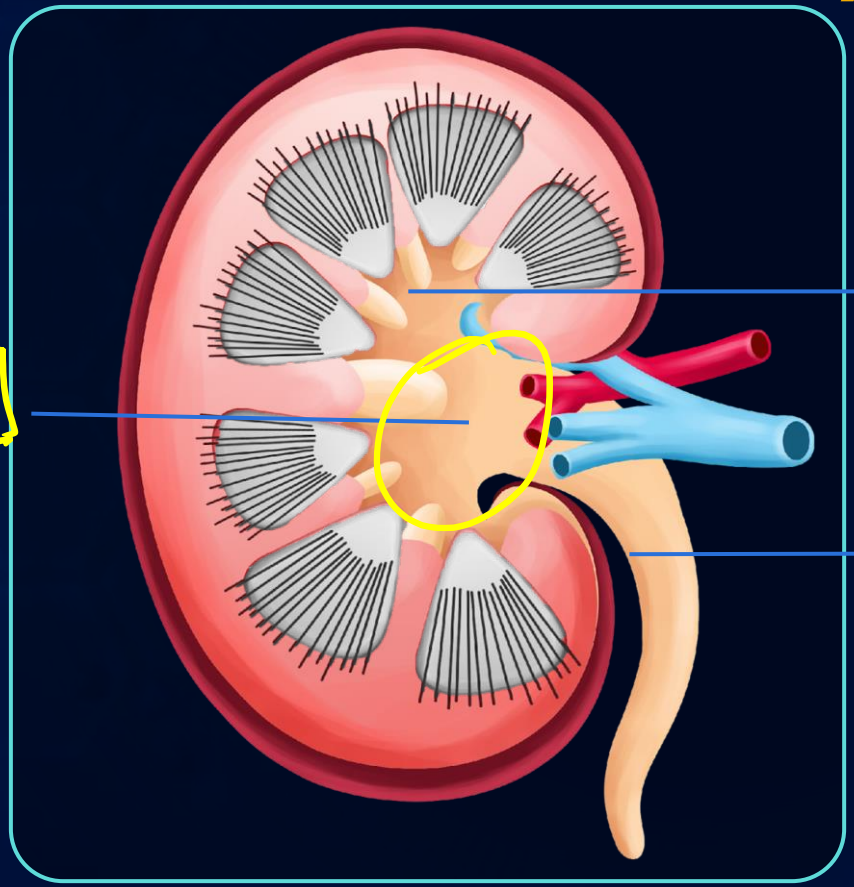


The Kidneys



Question Time !!

The notch of the kidney, which serves as the entry point of the ureters, blood vessels and nerves is known as:

a) Medullary pyramids

b) Hilum

c) Cortex

d) Calyx

The notch of the kidney, which serves as the entry point of the ureters, blood vessels and nerves is known as:

a) Medullary pyramids

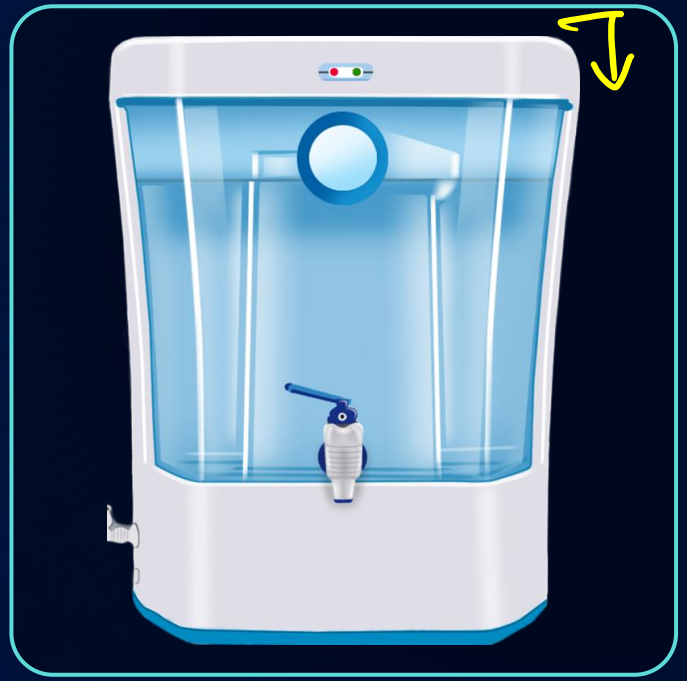
b) Hilum

c) Cortex

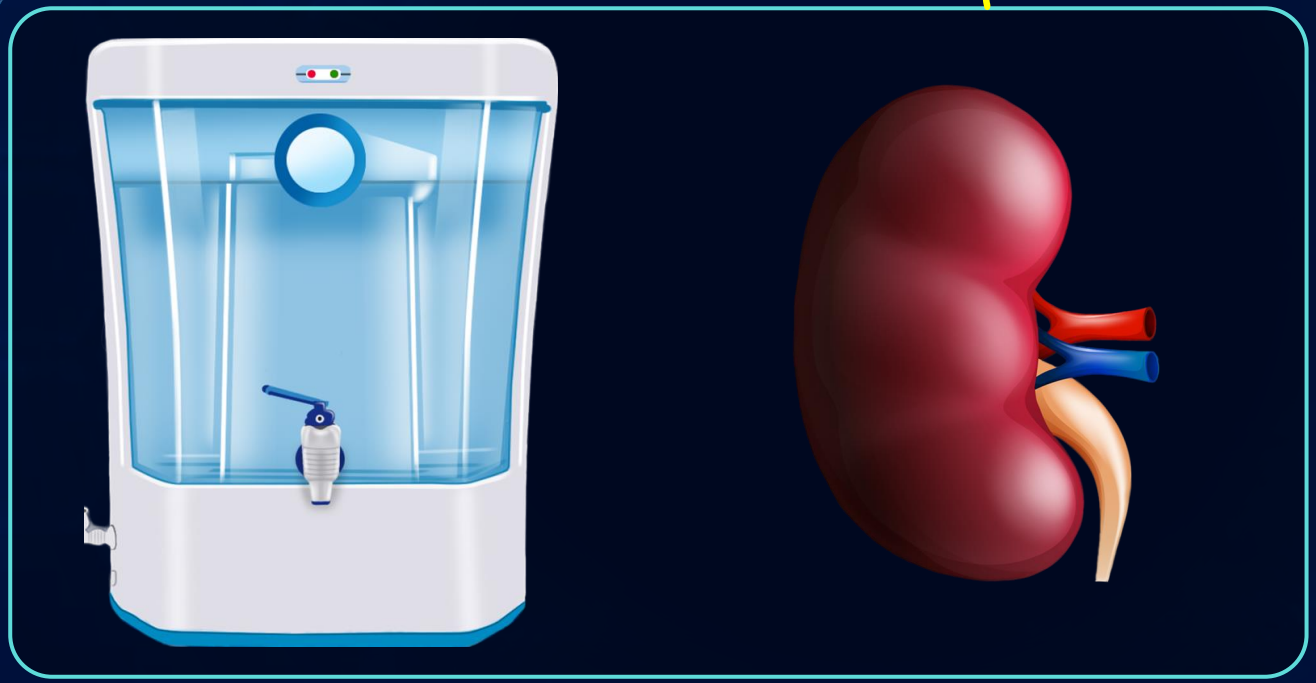
d) Calyx

Have you seen this?

Water Purifiers

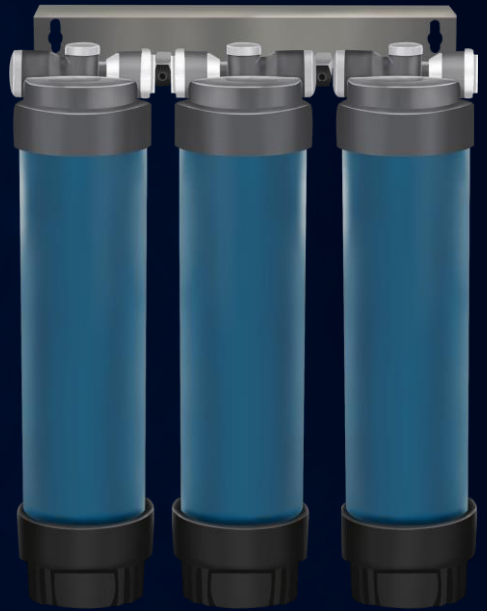


Purifiers of the Body

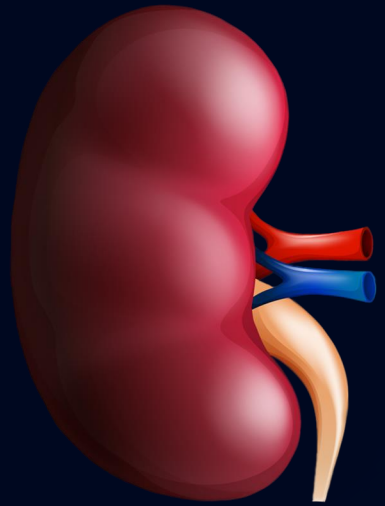


Purifiers of the Body

Functional units



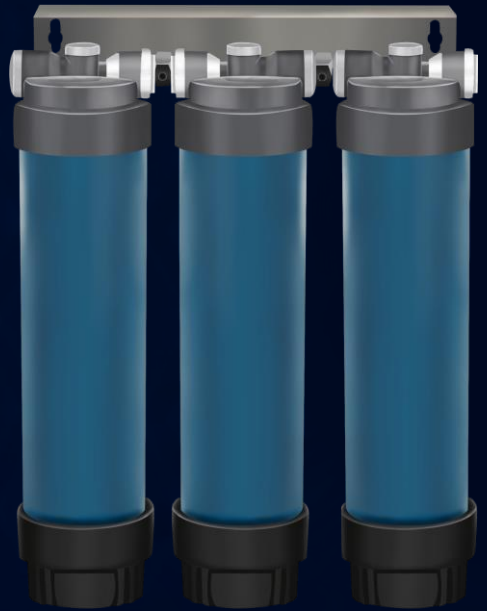
Filters of the water purifier



Filters of the kidneys

Purifiers of the Body

Functional units



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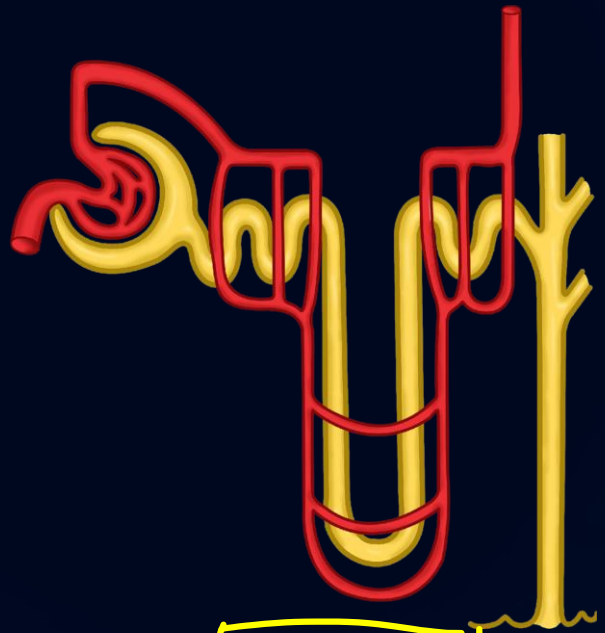
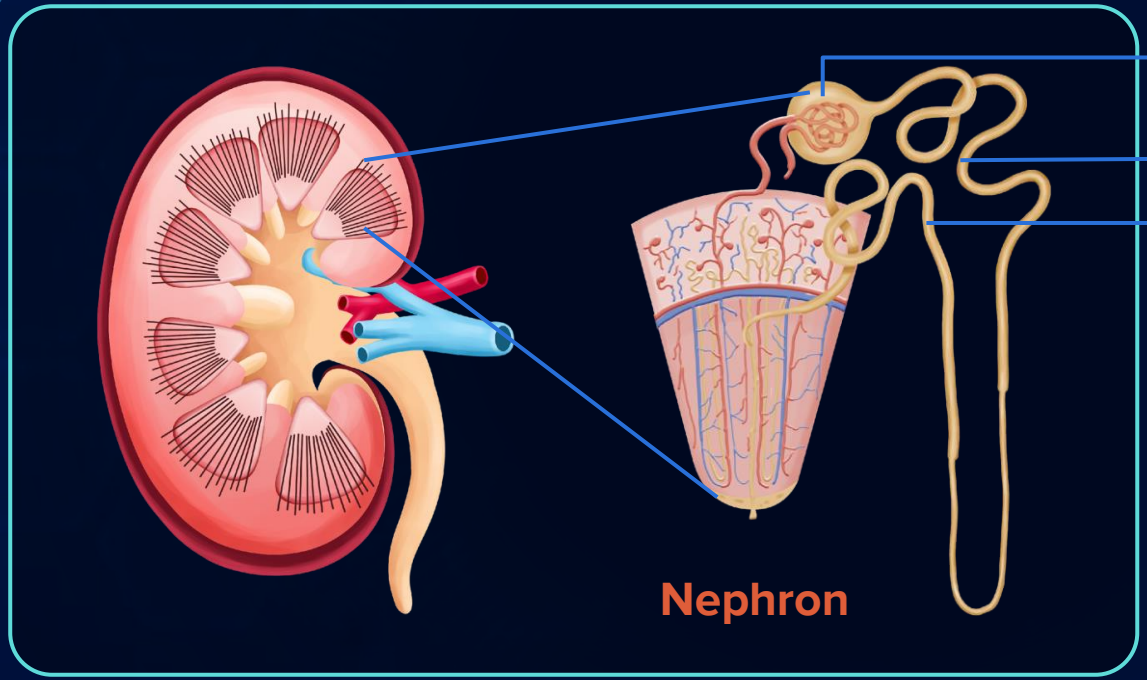


Nephrons

Nephron

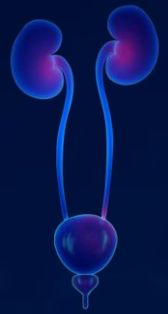
Nephron

Functional units



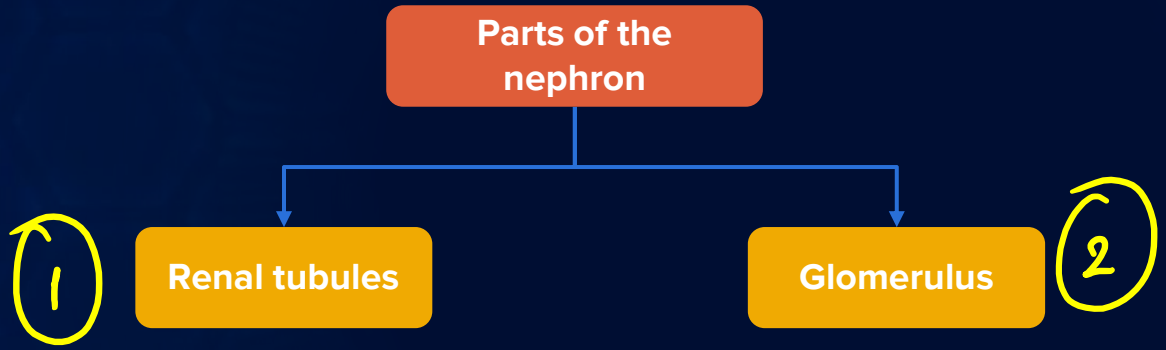
Nephron

Functional unit of the kidneys



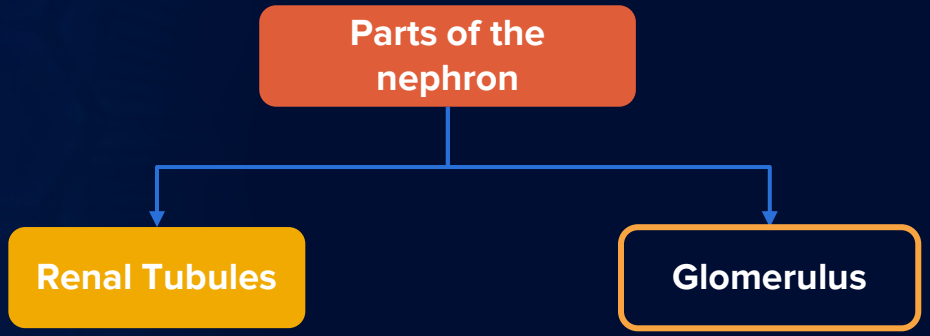
Nephron

Functional unit of the kidneys



Nephron

Functional unit of the kidneys

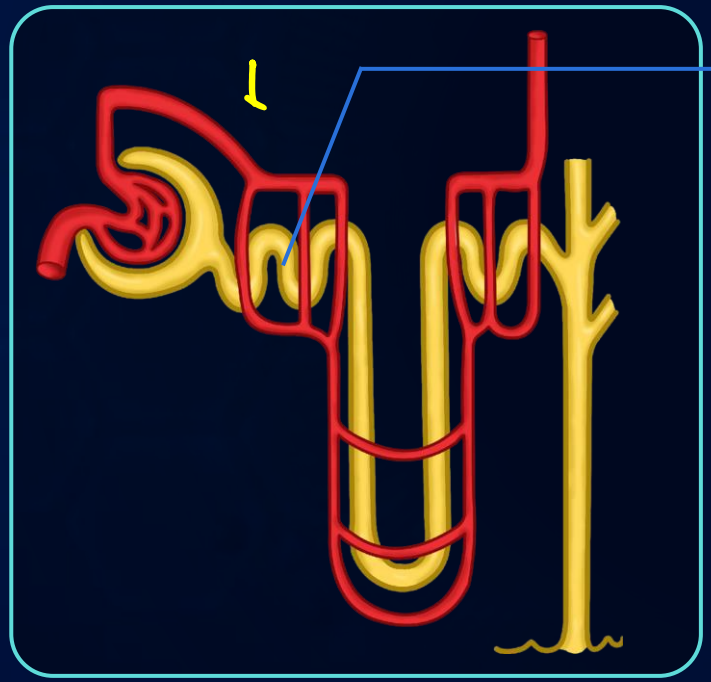


Nephron

Double walled.

Nephron

Renal tubule

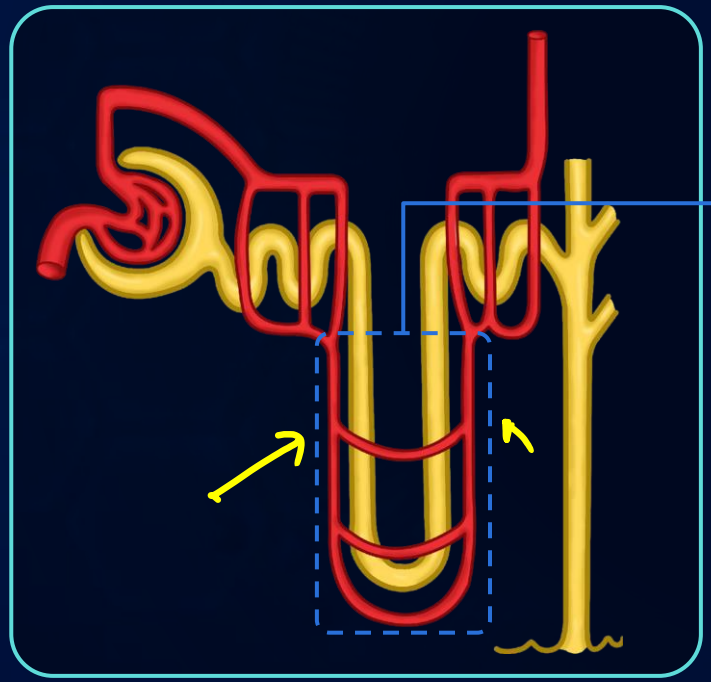


Proximal convoluted tubule (PCT)

Nephron

Hairpin.

Renal tubule

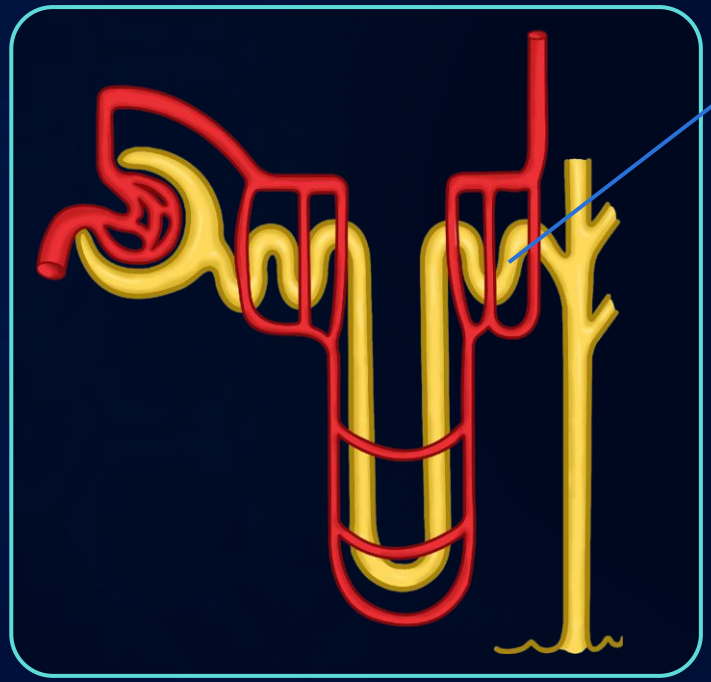


Nephron

Renal tubule

Nephron

Renal tubule

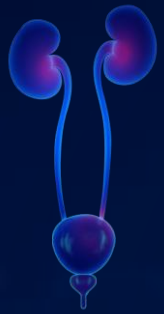


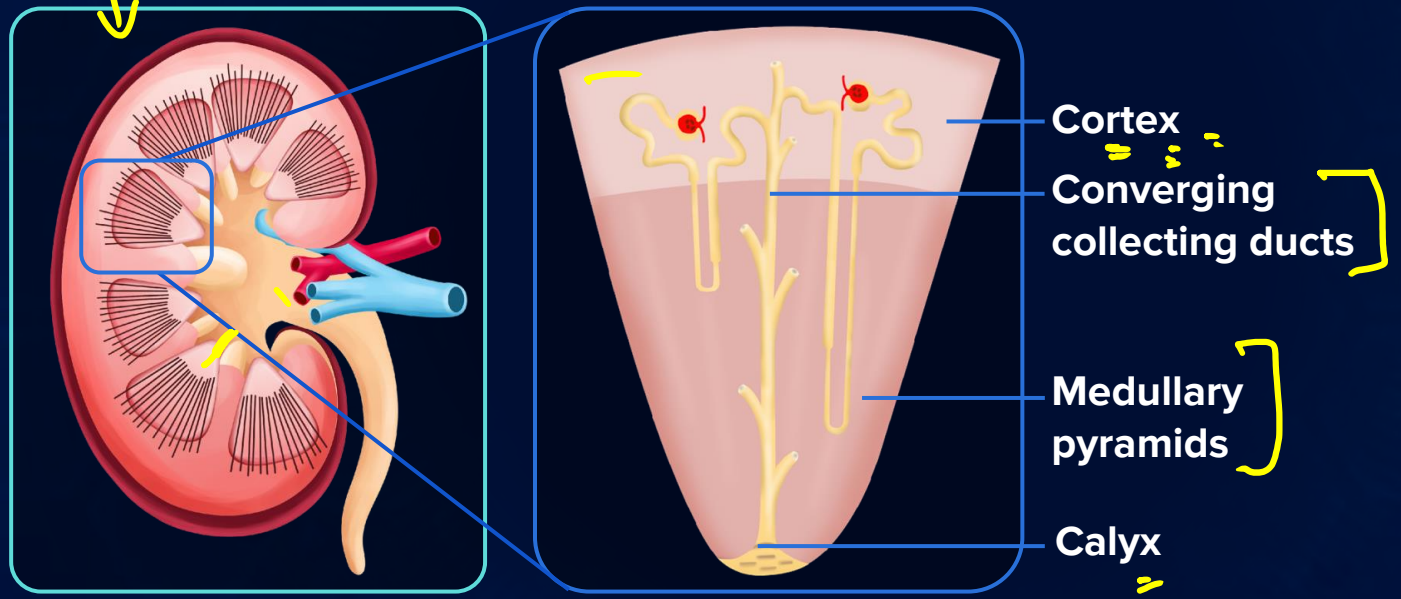
Distal convoluted tubule (DCT)

Nephron

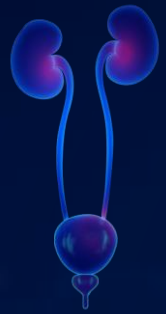
Collecting duct

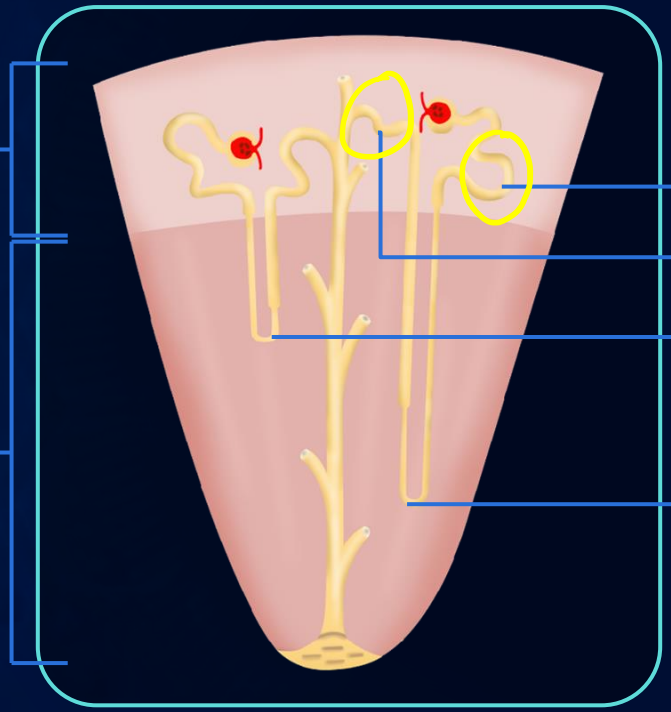
Nephron




Collecting duct
Cortex
Converging collecting ducts
Medullary pyramids
Calyx

Types of Nephrons





Cortex

Medullary pyramids

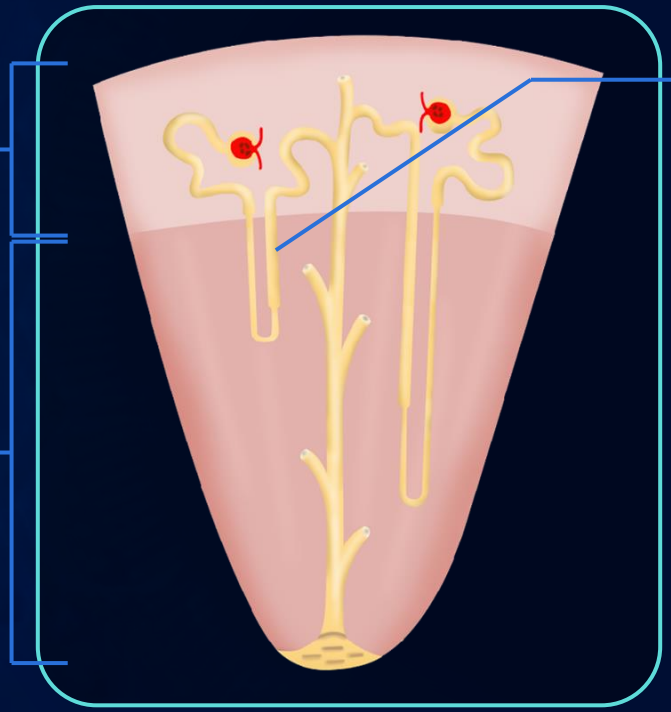
PCT

DCT

Cortex

Henle's loop

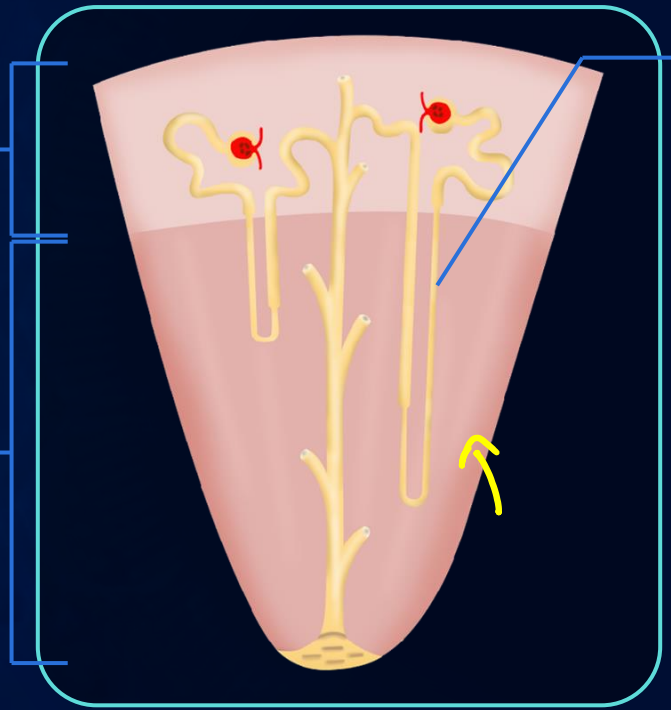
Types of Nephrons



Cortical nephrons

- Henle's loop is short
- Extends very little into the medulla

Types of Nephrons



Juxta medullary nephrons

- Long Henle's loop
- Extends deep into the medulla

Question Time !!

The portion of the nephrons that lie in the cortex includes :

a) PCT and DCT

b) Henle’s loop, PCT, and DCT

c) Henle’s loop, PCT

d) Only the DCT

The portion of the nephrons that lie in the cortex includes

a) PCT and DCT

b) Henle's loop, PCT, and DCT

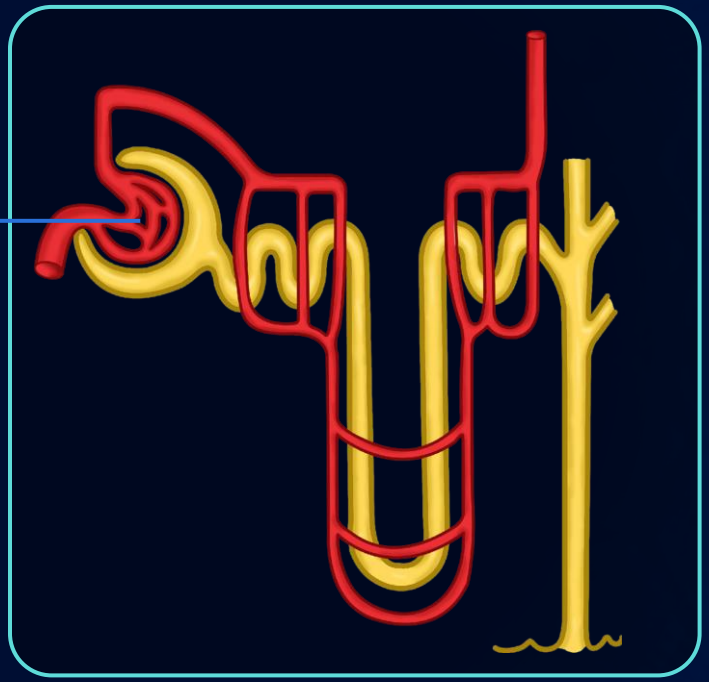
c) Henle's loop, PCT

d) Only the DCT

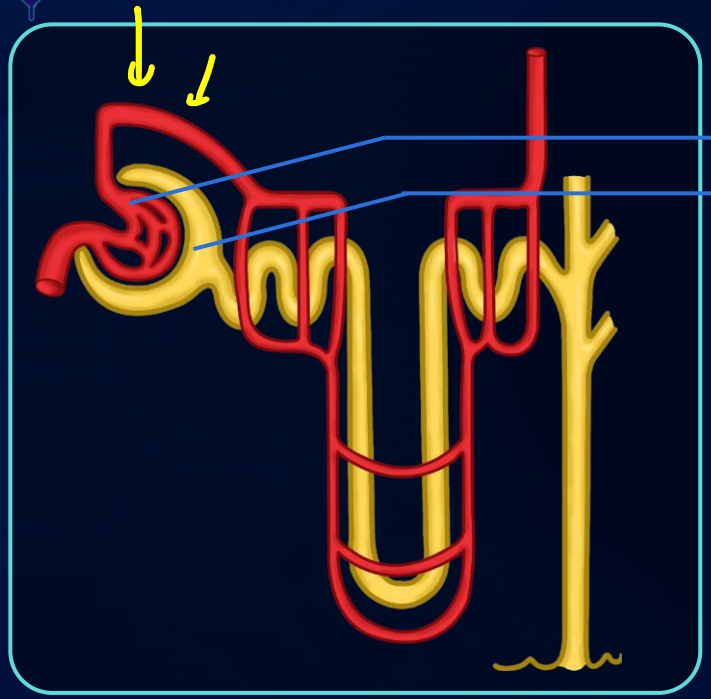
Nephron

Nephron

- Glomerulus
- Renal tubules



Nephron



Glomerulus

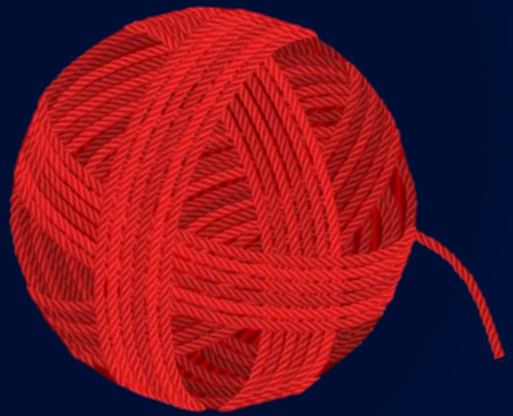
Bowman's capsule

Malpighian body or renal corpuscle

Nephron

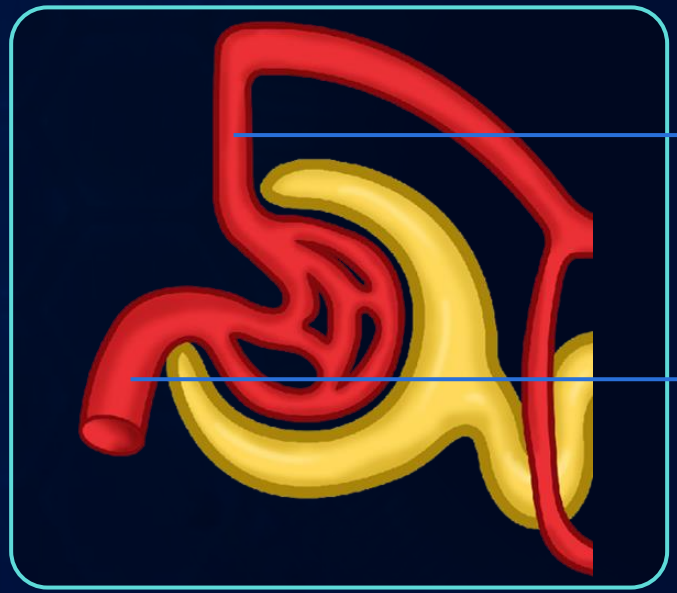
glomer.

The glomerulus



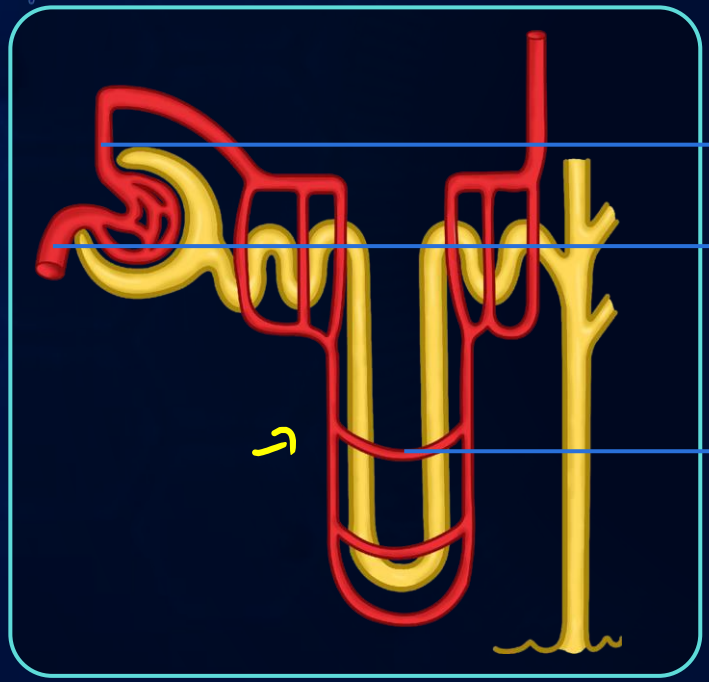
Nephron

The glomerulus



Nephron

The glomerulus



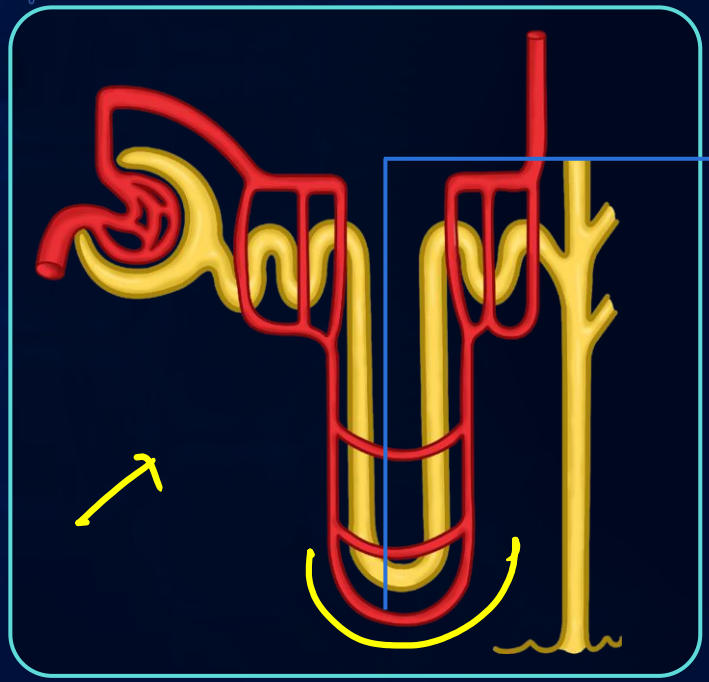
Efferent arteriole

Afferent arteriole

Peritubular capillaries

Nephron

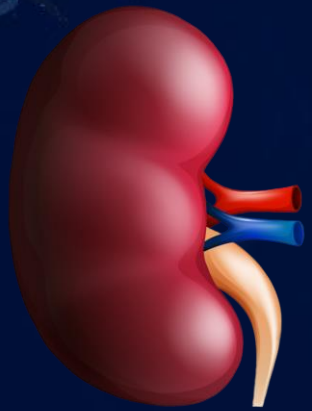
Vasa recta



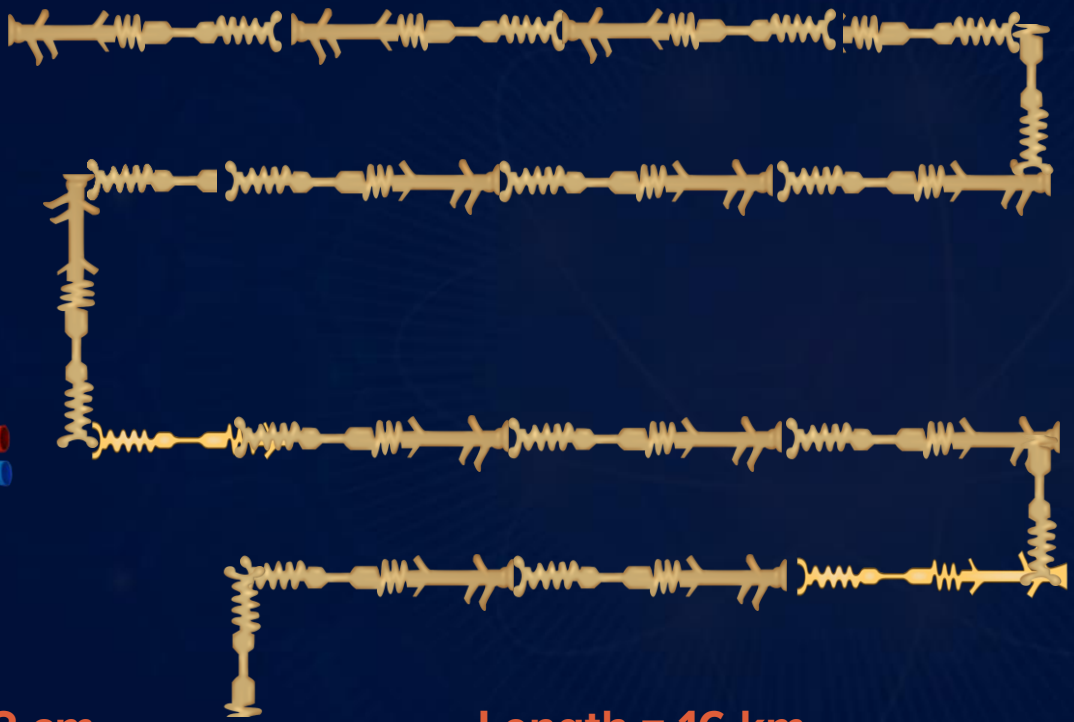
Vasa recta

- U-shaped
- Absent or highly reduced in cortical nephrons

Did you know ?



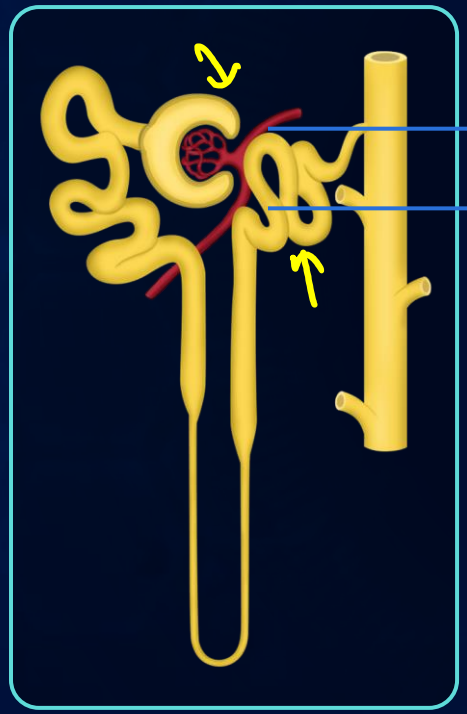
Length = 10-12 cm



Length = 16 km

Nephron

Juxta glomerular Apparatus.

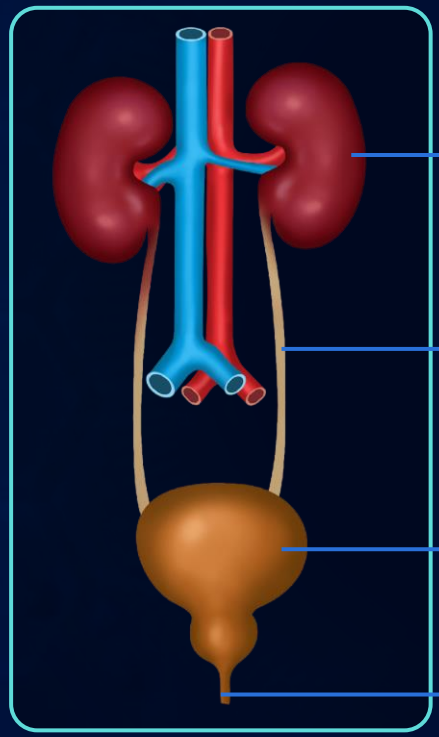


Afferent arteriole

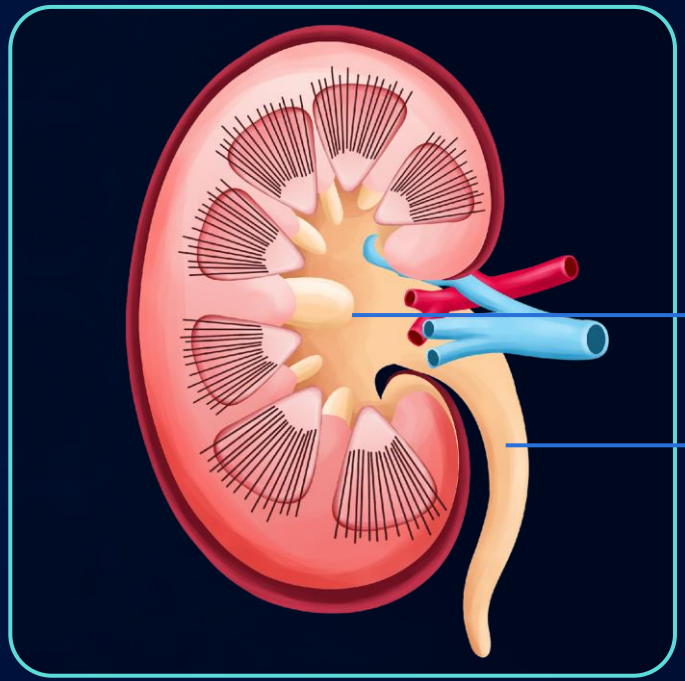
Distal convoluted tubule

JGA

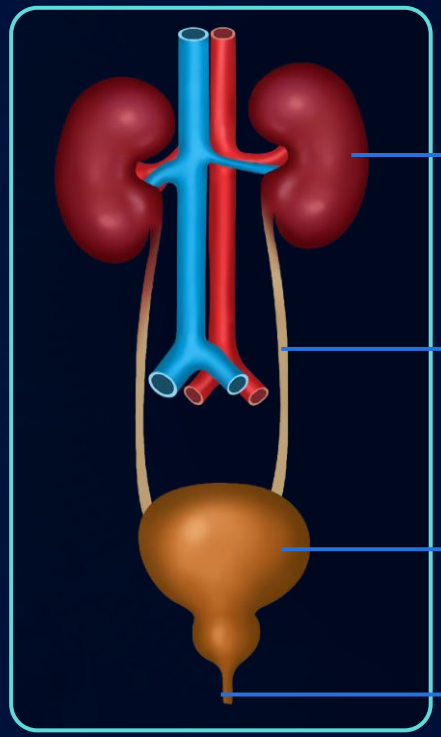
The Human Excretory System



The Human Excretory System

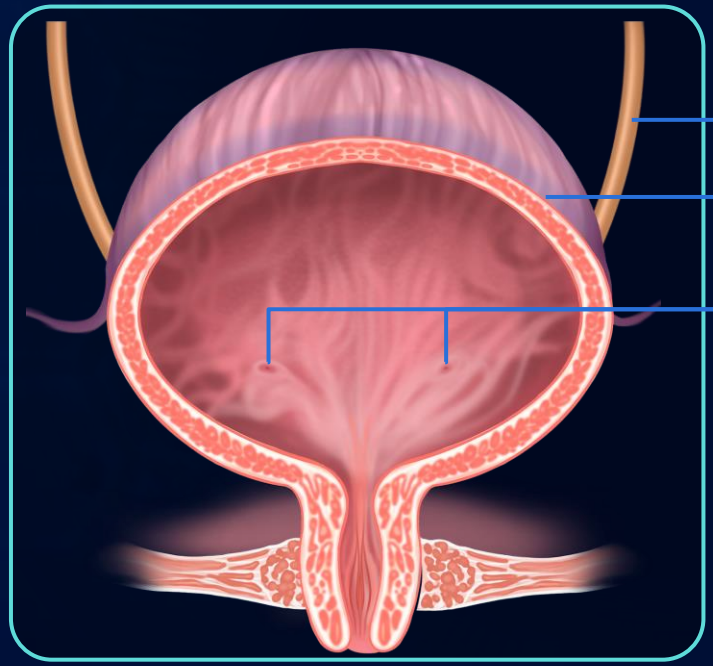


The Human Excretory System



Urinary Bladder

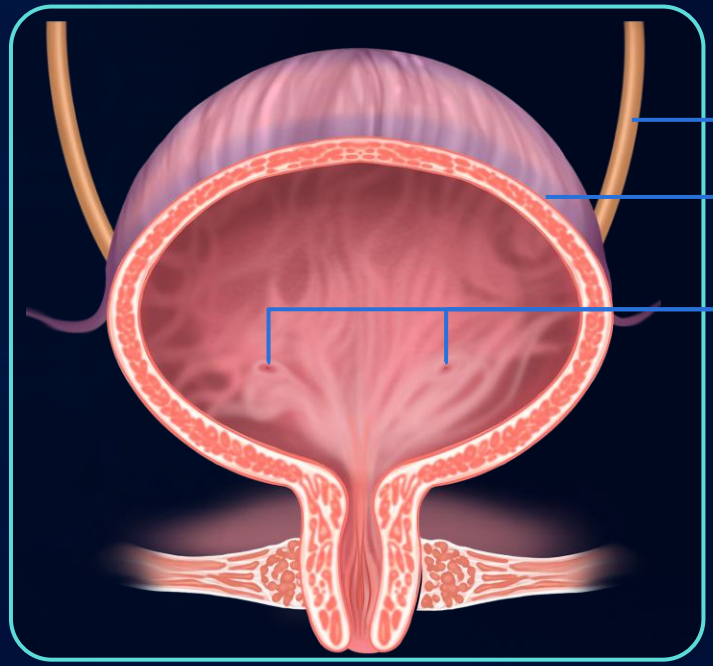
Stores and expels urine



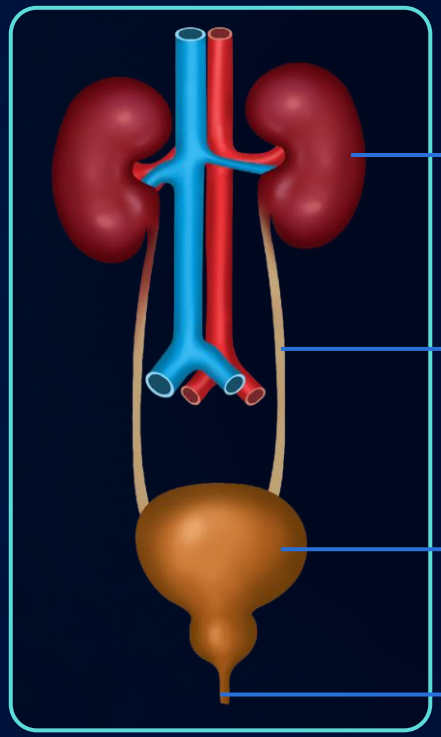
Urinary Bladder

Stores and expels urine

- Lined by the **transitional epithelium**

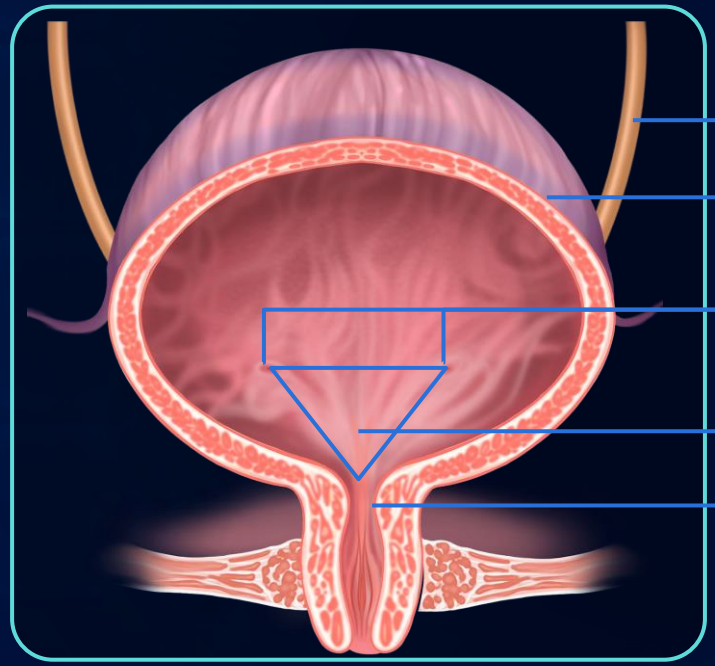


The Human Excretory System



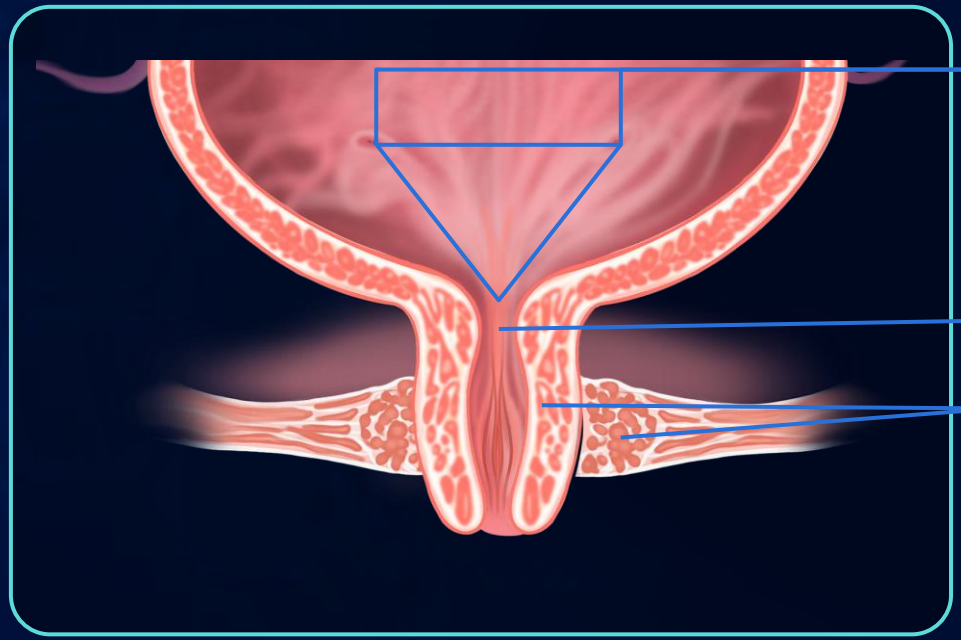
Urethra

Duct that drains the urine out of the bladder



Nephron

Duct that drains the urine out of the bladder



Question Time !!

The epithelium which lines the urinary bladder is known as:

a) Squamous epithelium

b) Pseudostratified epithelium

c) Transitional epithelium

d) None of the above

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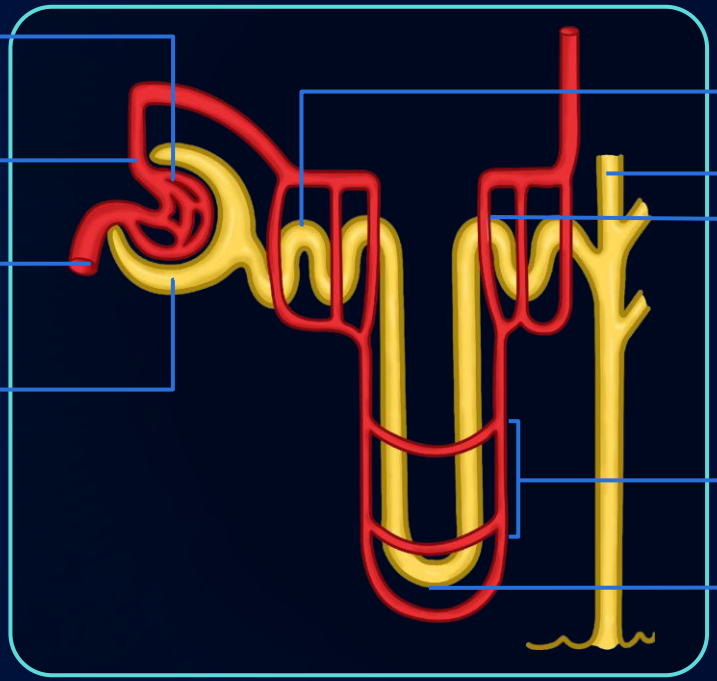
Recap : The Nephrons



Glomerulus

Efferent arteriole

Afferent arteriole

Bowman's capsule

Proximal convoluted tubule (PCT)

Collecting duct

Distal convoluted tubule (DCT)

Peritubular capillaries

Henle's loop

Keep Learning..!