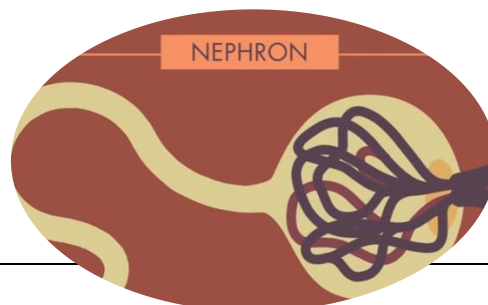


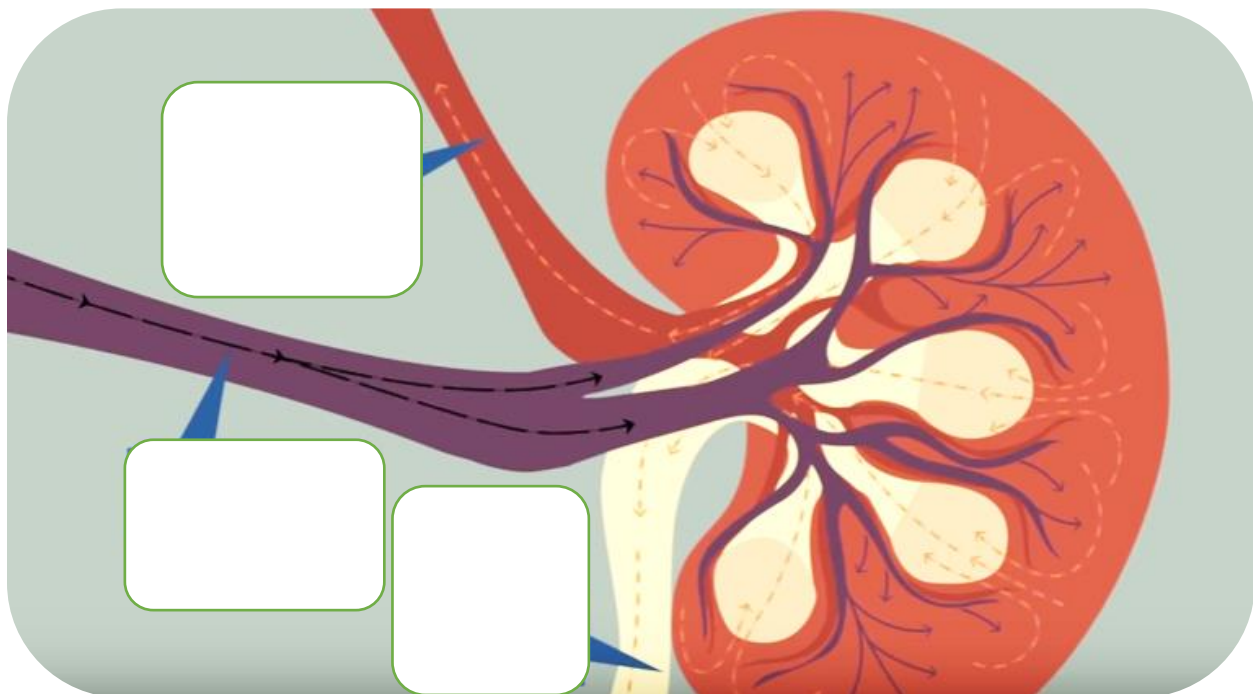
U4 : L3 KIDNEYS

Fill in the following notes while following along with the video "How Do Your Kidneys Work?"

What shape are your kidneys?
What do the kidneys do?
Balance _____
Detect _____
Know when to release _____ your body needs to stay alive.
The main role of your kidneys is to dispose of _____ and turn them in to _____
How many times does your blood pass through your kidneys each day?
Which is the same as about _____ every _____
Blood enters each kidney through _____
What are NEPHRONS?
There are about _____ nephrons in your kidneys.
Nephrons are a powerful array of _____
Which 2 structures help the nephrons filter blood?
the blob like structure called the _____ and the long stringy straw-like _____



GLOMERULUS	TUBULE
<ul style="list-style-type: none">■ Works like a sieve, letting only _____ through.■ Detects if the body needs any vitamins and minerals and sends them throughout the body.■ Receives _____ as well and has to figure out what to do with them.	<ul style="list-style-type: none">■ Tubules sense compounds the body does not need.■ Like _____ the leftovers of broken down proteins. This is redirected through the _____ as urine.
<ul style="list-style-type: none">■ If the kidneys sense too much water, they will send this to the _____ to be removed.■ _____ water levels in the kidneys prompt them to release some water back into the body through the _____...less water then makes it in to the urine.■ This is why urine is more _____ when you are less hydrated.	



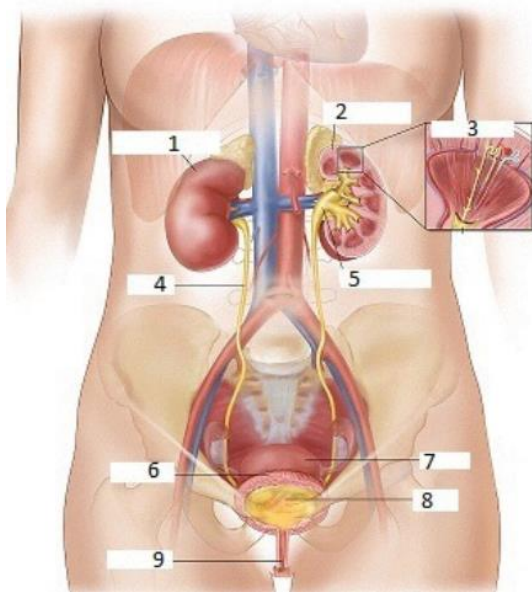


Kidneys also have the power to control Vitamin D in the body and a hormone called _____ And a hormone called Erythropoietin which _____.

Without the kidneys, our _____ would spiral out of control.



MORE ABOUT THE KIDNEYS



- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.

ROLES OF THE KIDNEYS

→ → → →

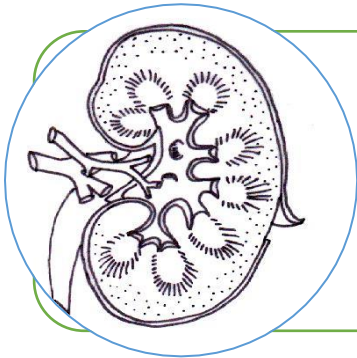


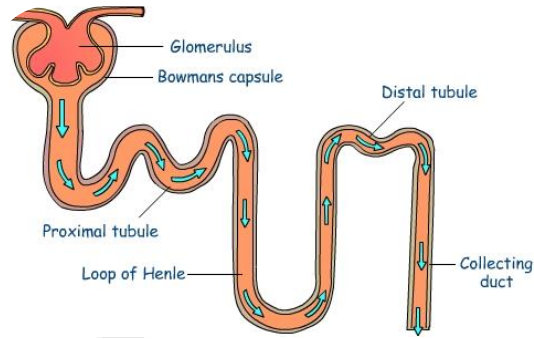


Cleans the blood by removing _____ (urea),
_____ (salts, glucose, toxic substances),
and _____. These wastes are excreted as _____

If the blood becomes too dilute or too concentrated with solutes
it can interfere with normal _____

The kidneys regulate water concentration in the blood by
_____ (if the blood is too dilute) or
_____ (if the blood is too concentrated)

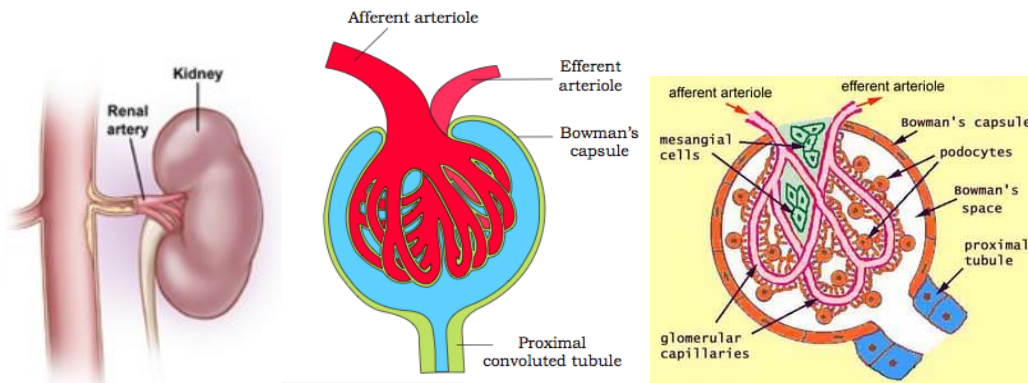




Bowman's Capsule	
Glomerulus	
Proximal Tubule	
Loop of Henle	<p>Long, loop after the _____</p> <p>Descending part allows _____</p> <p>Ascending part allows _____</p> <p>It extends from the renal cortex down into the renal medulla and back</p>
Distal Tubule	
Collecting Duct	<ul style="list-style-type: none"> • _____ portion after the distal convoluted tubule that is the _____ of the nephron • Extends from the renal cortex down through the renal medulla • Each kidney has many collecting ducts

The nephron has a unique blood supply compared to other organs.

- Renal artery
- Afferent arteriole
- Glomerular capillaries



- Efferent arteriole

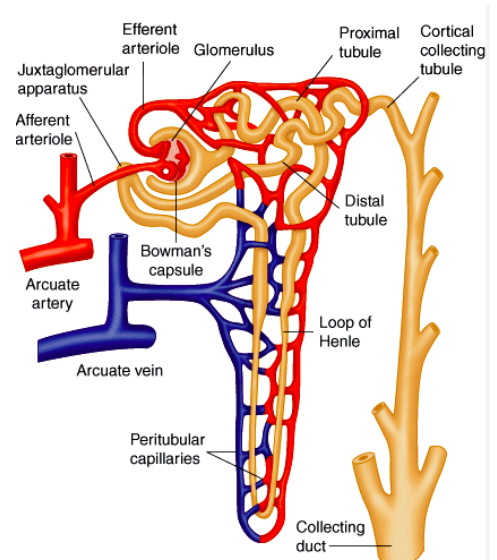
- Peritubular capillaries

Located after the _____ and surrounding the proximal tubule, the loop of Henle and the distal convoluted tubule

Connects to the _____

- Renal vein

Returns blood from the kidney to the _____



**LABEL THE
FOLLOWING
DIAGRAMS**

