

This mark will not be accurate – your mark will be given to you on EDMODO

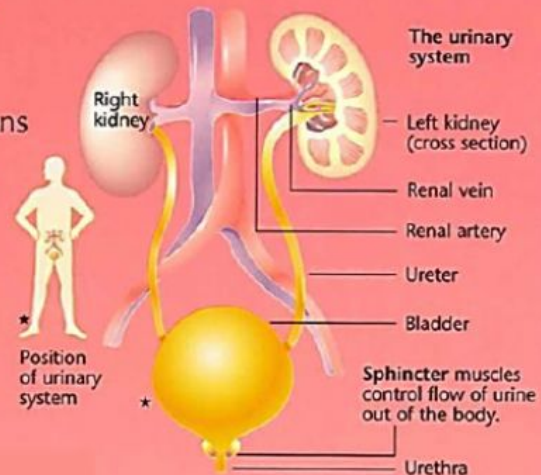
Anatomy

Read these passages or listen to it

1

BALANCING ACT

For your body to work properly, conditions inside it, such as temperature and the levels of water and other chemicals, need to be kept constant. This is known as **homeostasis**. An important aspect of this is **excretion** – the removal of waste substances from your body. Chemicals called **hormones** also help to control the levels of substances inside your body.



2

Name the things that your body needs to work properly:

This is known as...

An important aspect of this is...

What are the chemicals called that help to control the levels of substances inside your body:

3

EXCRETORY ORGANS

Any part which removes waste from your body can be called an **excretory organ**. The main ones are your kidneys and liver, but there are others. Your lungs, for example, remove carbon dioxide and water when you breathe out, and your skin removes water and unwanted salts in the form of sweat.

4

What is an excretory organ?

5

URINARY SYSTEM

The **urinary system** controls the amount of water in your body. It is made up of two **kidneys**, a balloon-like sac called the **bladder**, and the tubes connected to them. Blood flows through **renal arteries** into the kidneys where it is filtered by about a million tiny units called **nephrons**.

6

What does the urinary system control?

7

Select the organs that form part of the urinary system?

kidney

stomach

lungs

anus

bladder

heart

8

Inside each nephron (see diagram, below) the artery splits into knots of capillaries* called **glomeruli**. High pressure inside the glomeruli forces glucose, water and salts to filter out of the blood into cup-shaped structures called **Bowman's capsules**.

9

What are the knots of capillaries called?

11

The remaining liquid, now called _____, passes into a _____, which drains into an area known as the _____. Then to the _____ and into the _____ and ends in the _____.

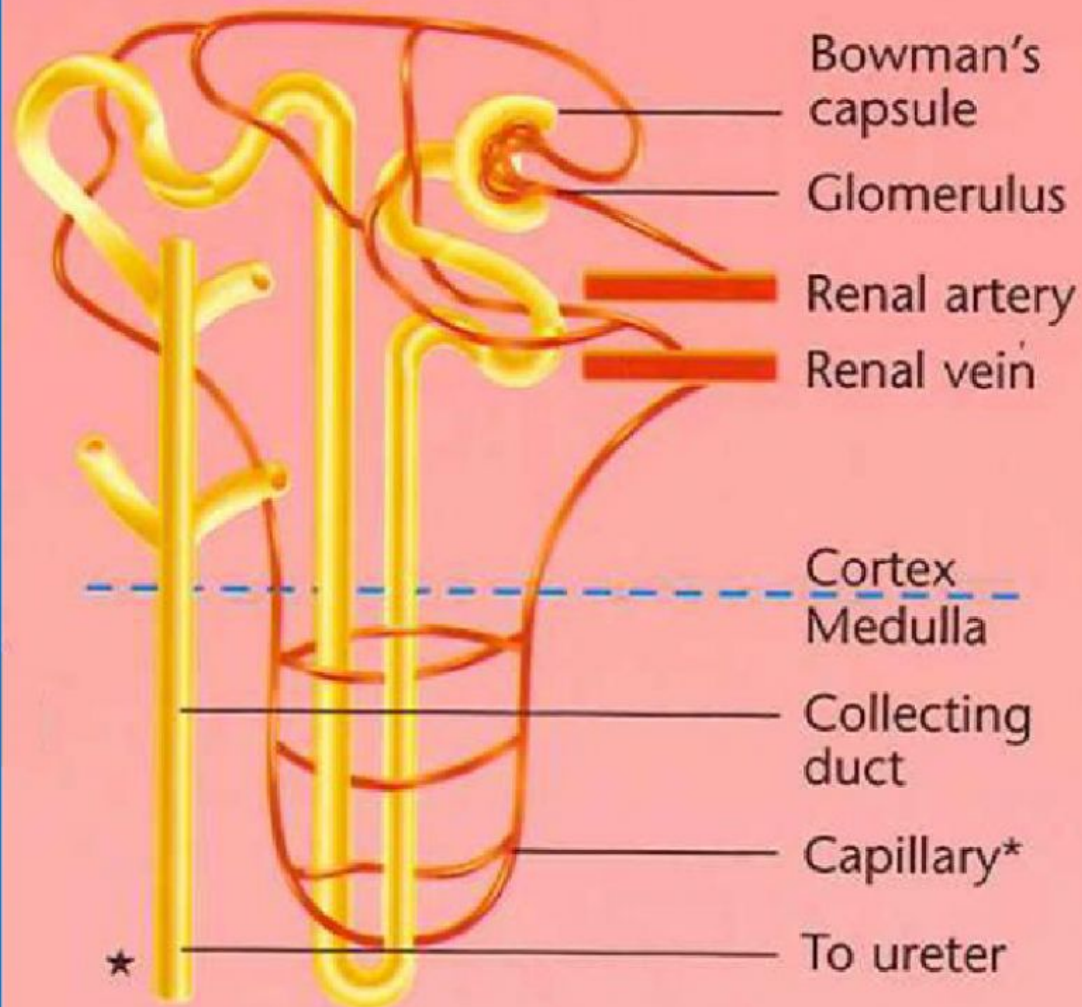
10

The cleaned blood flows through the **renal vein** back to the body. The filtered liquid travels along a looping tube in the nephron, where some glucose, water and salts are reabsorbed.

The remaining liquid, now called **urine**, passes into a **collecting duct**, which drains into an area known as the **renal pelvis**. From there the urine flows through a tube called the **ureter** into the bladder. The urine is stored until you go to the toilet, when it leaves the body through a hole called the **urethra**.

12

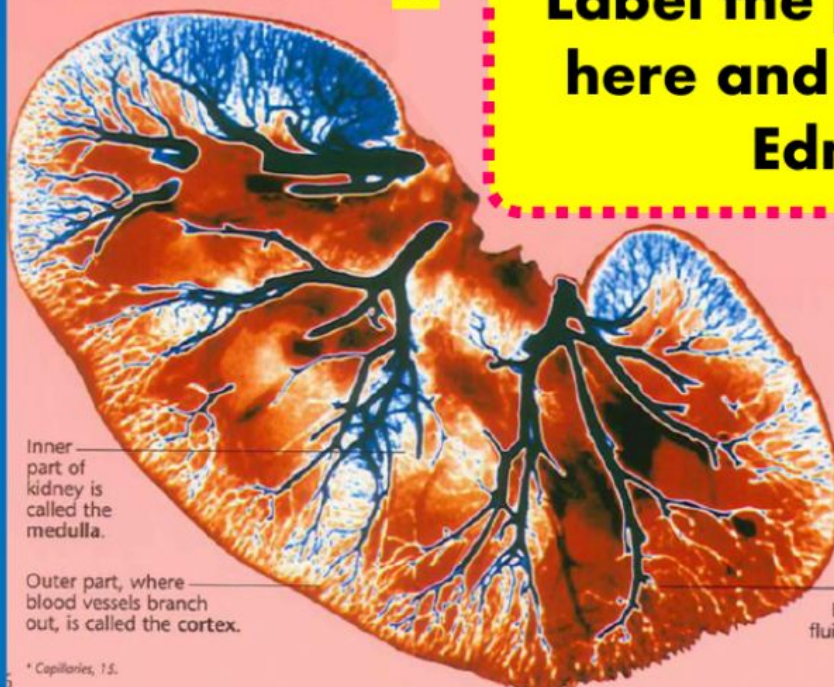
Inside a nephron



This X-ray image shows the blood vessels inside a kidney.

13

Draw the kidney on a page:
Label the parts shown
here and attach it on
Edmodo



Inner part of kidney is called the medulla.

Outer part, where blood vessels branch out, is called the cortex.

The blood vessels can be seen clearly because they have been injected with a fluid which X-rays cannot pass through.

* Capillaries, 1.5.

Watch the video

Write about what you remember:
[See if you can remember FIVE or more facts]

Tell me which exercise you did on EDMODO

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