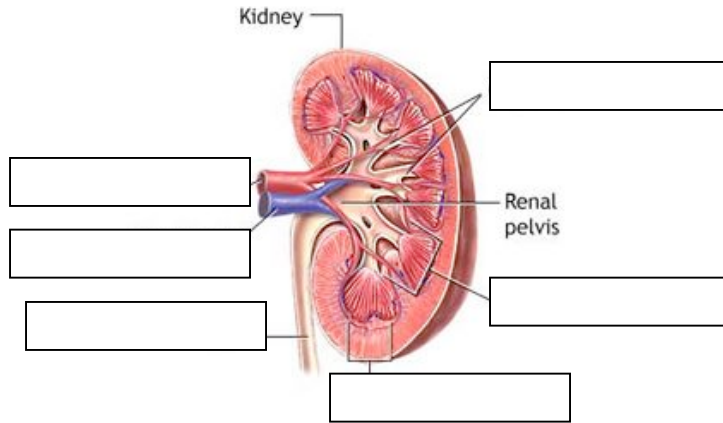


Urinary System and Excretion WebQuest

http://www.medindia.net/animation/anatomy_urinary.asp

- Each kidney is about the size of a human _____.
- Label the diagram.

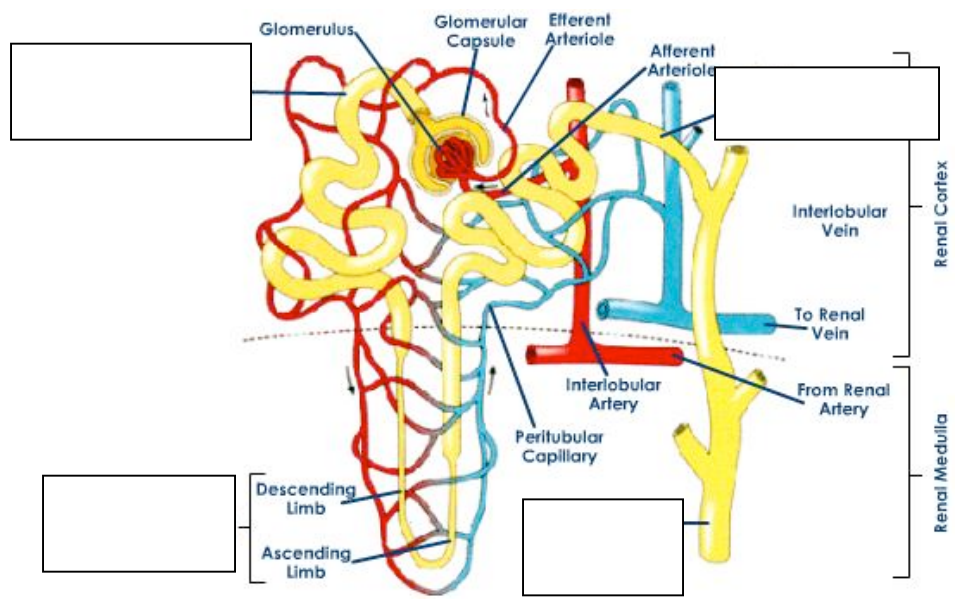


[http://www.minnpost.com/client_files/alternate_images/2635/large_KidneyDiagram.jpg]

- The specialized unit of the kidney is called the nephron, and its function is to produce _____ by filtering waste and extra fluid from the blood. (Stop at slide 3)

<http://www.tutorvista.com/content/biology/biology-iv/excretion/nephron-structure.php>

- The _____ is the functional unit of the kidney. It consists of a twisted _____ closed at one end and open at the other with a network of associated blood vessels (*glomerulus*).
- Each kidney has approximately _____ nephrons that are about _____ in length.
- Label the 4 primary regions of the nephron:



- The _____ is a large double-walled cup that contains a group of capillaries called the _____.

8. The _____ is a V-shaped segment of the nephron located in the renal medulla. It is continuous with the distal and proximal convoluted tubules.
9. The _____ ducts receive the collecting tubules of several nephrons and open into the renal pelvis.

Go back to: http://www.medindia.net/animation/anatomy_urinary.asp (slide 4)

10. Blood enters the kidney through the renal _____ and passes into the nephron.
11. The bulk of the filtering takes place in the _____.
12. The filtered wastes then travel through the tubule where the excess fluid is converted to _____.
13. The urine reaches the renal pelvis and passes into the _____.
14. Next, it enters the urinary _____ to be stored until it is released via the _____.
15. Finally, the filtered blood leaves the kidney through the renal _____.

Directions: Go to <http://www.biologymad.com/resources/kidney.swf>.

1. What does the renal vein do? What direction does blood flow in (toward or away from kidney)?
2. What does the renal artery do? What direction does blood flow in (toward or away from the kidney)?
3. What is the outermost part of the kidney called?
4. What does this section do?
5. What is the middle of the kidney called?
6. What does this section do?
7. What is the innermost part of the kidney called?
8. What does this section do?
9. Which section of the kidney does the glomerulus belong to?
10. Which section of the kidney does the Loop of Henle belong to?
11. Click on each of the substances in the blood. Which of these substances remains within the filtrate as waste?
12. Which of the substances diffuses back into the blood?

13. Click on the Loop of Henle. Describe the movement of water and of salt in the descending loop.

14. Describe the movement of water and salt in the ascending loop.

http://kidshealth.org/parent/general/body_basics/kidneys_urinary.html

1. Identify four different wastes produced by your body?

a.

c.

b.

d.

2. Out of these wastes produced by your body, which waste product is produced by the kidney? _____

3. DRAW in the space below a picture of the Urinary tract, LABEL your picture and give a brief description of each body part. If you move the mouse over each body part it will give you a description.

<http://www.davita.com/dialysis/>

Click on left menu, where it says Dialysis. Click on The Basics and watch "How does dialysis work?"

1. What is dialysis?

2. What are some benefits of dialysis?

3. What is hemodialysis?

4. What is peritoneal dialysis?