

URINE FORMATION - Notes

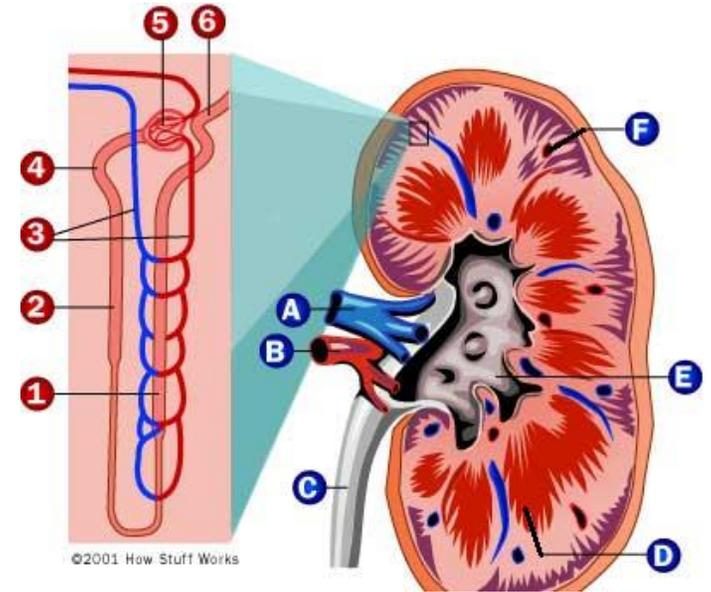
Please fill in the following notes package on your own. You can use the textbook (chapter 16 – page 302 to 308) or any online sources.

The following videos are good ones to watch as a way of introduction or review.

- <http://bit.ly/urinary1>
- <http://bit.ly/urinary2>
- <http://bit.ly/urinarycrashcourse1>
- <http://bit.ly/urinarycrashcourse2>

Terms you need to know (please define in our own words):

1. Tubule
2. Capillary
3. Reabsorption
4. Excretion



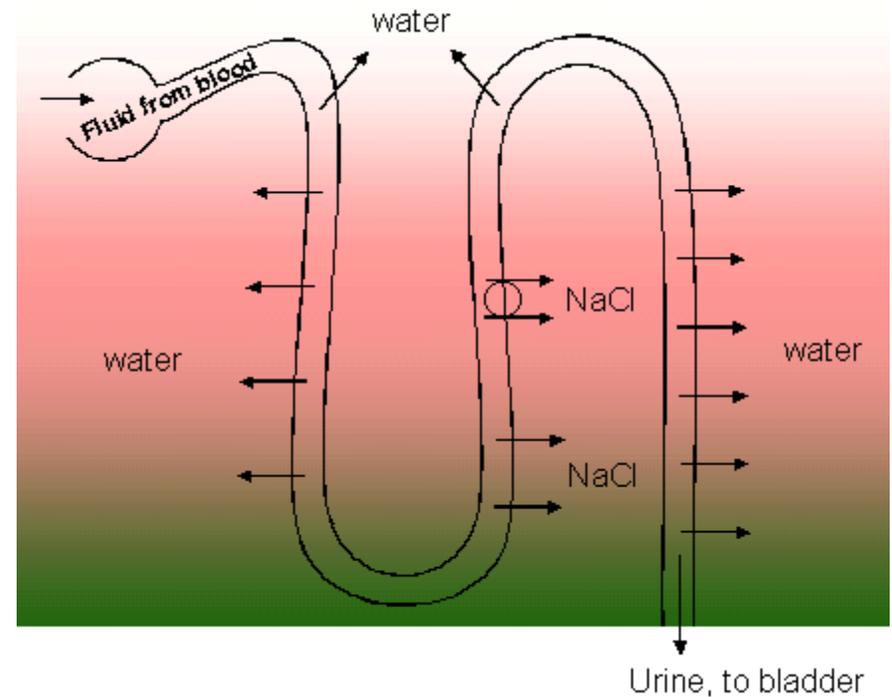
Process	Location	What moves? (be specific)	How does it move? (diffusion, osmosis, facilitated diffusion, active transport)
Glomerular Filtration (pressure filtration)			
Selective Reabsorption (tubular reabsorption)	Proximal Convoluted Tubule		

Selective Reabsorption (tubular reabsorption)	Descending Loop of Henle		
	Ascending Loop of Henle		
	Distal Convoluted Tubule		
	Collecting Duct		
Tubular Excretion (tubular secretion)	Distal Convoluted Tubule		

Osmotic Gradient

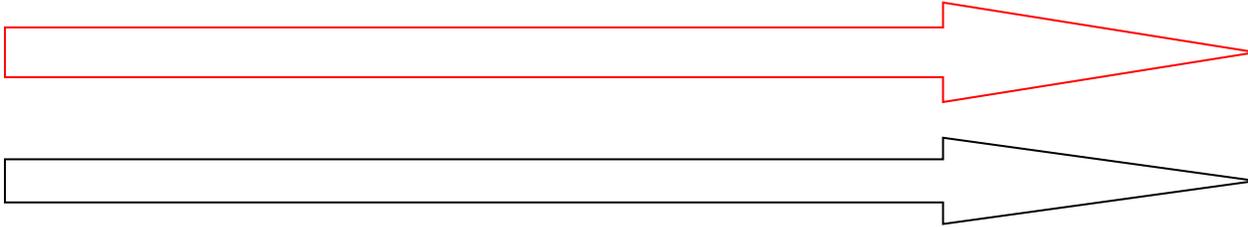
Label this diagram – with the parts of the Nephron

- Due to active transport of salt on the _____ limb, more and more water diffuses out of the descending limb
- The membrane on the ascending limb is _____ to water



Acid/Base Balance

- Homeostasis: maintenance of the body within narrow _____
- For examples the blood pH should stay at _____. If the blood is too acidic – the following process happens in the PCT and DCT

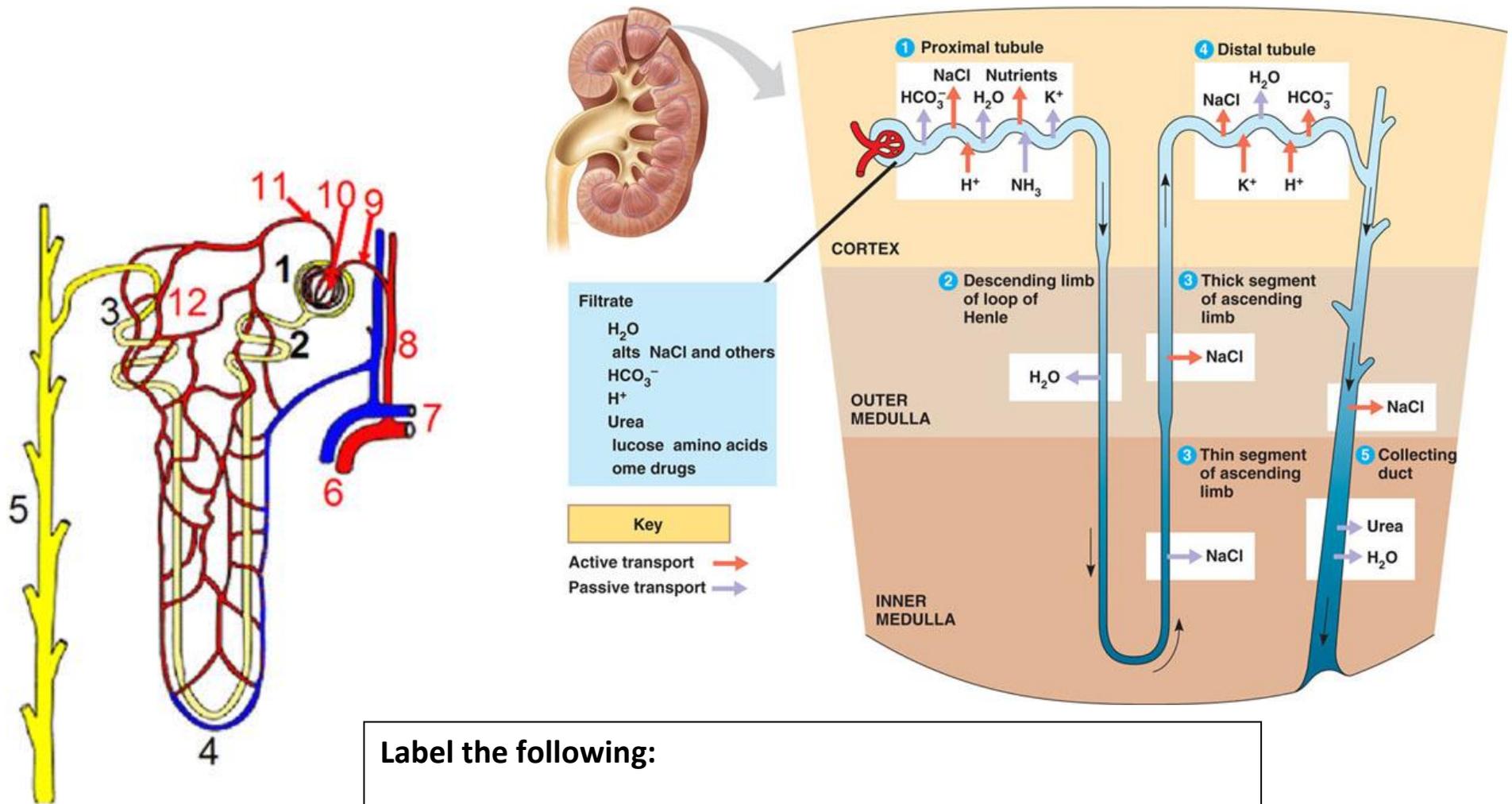


Water/Salt Balance regulated by 2 hormones

Hormone	Where is it produced?	Why is it released?	Where does it act on?	What does it cause to happen? (refer to both the blood and urine).
ADH (antidiuretic hormone)				
Aldosterone				

Questions:

1. If you have too much water in your blood will the pituitary gland secrete more or less ADH?
2. If your blood pressure is low in your afferent arteriole – what hormone will be released?



Label the following:

- | | |
|---------------|-----------------------------------|
| 1. | 7. Renal artery |
| 2. | 8. Renal arteriole |
| 3. | 9. |
| 4. | 10. |
| 5. | 11. |
| 6. renal vein | 12. peritubular capillary network |