

Instructions: Complete the chart using the animation [https://www.youtube.com/watch?v=U-†M°V\)†](#)

Specific functions of each part of the kidney

Region in nephron	What happens to the filtrate in each region of the nephron?
Bowman's capsule and glomerulus (cortex)	
Proximal tubule (cortex)	
Loop of Henle (medulla)	Primary function: Differences between ascending and descending loop:
	Ascending loop (thick): Ascending loop (thin):
	Descending loop:
Distal tubule and collecting duct (spans cortex and medulla)	

Human Urinary System: Nephron Function Practice Questions

1. Complete this chart. Use the

Region of Nephron	Direction of movement of substances (e.g., nutrient, waste, H ₂ O, ions)	Active or Passive Transport	Permeability to H ₂ O and ions
Proximal tubule			
Descending limb of the Loop of Henle			
Thin ascending limb of the Loop of Henle			
Thick ascending limb of the Loop of Henle			
Distal tubule			
Collecting duct			

2. Make a T-chart to identify how the blood plasma and filtrate are alike and different (e.g., contents, location, colour)
3. How does the movement of substances in the ascending limb of the loop of Henle affect the movement of substances in each of these areas:
 - a. The descending limb
 - b. The distal tubule
 - c. The collecting duct
4. What is the difference between reabsorption and secretion? Where does each occur in the nephron?
5. What areas of kidney tissue surrounding the nephron would you expect to find an area of high concentration of mitochondria? Explain.
6. Try study guide questions p. 140 #1-4, 6, 10-11