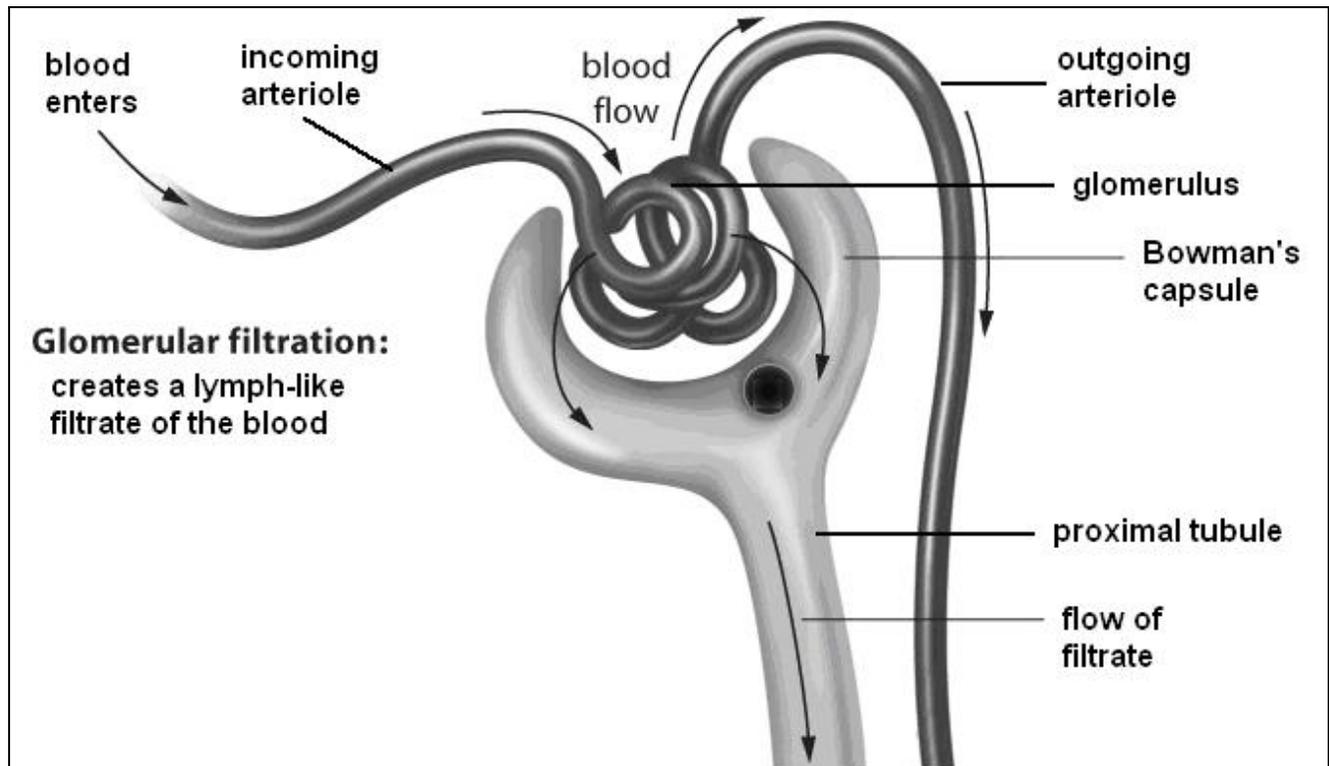


Urine formation occurs as blood pressure forces filtrate from the glomerulus into the capsule. This bulk flow of fluids into the capsules of the nephrons in both kidneys creates about 180 L of filtrate per day. All but about 1 L will be actively reabsorbed back into the blood, with great expenditure of ATP.



1. How does bulk flow of filtrate into the capsule differ from diffusion?

Glomerular Filtration

2. In what ways is nephric filtration similar to formation of interstitial fluid (lymph) in other tissues in the body?

3. One of the effects of a drug overdose is a serious decrease in blood pressure. How might this affect kidney function?

4. Explain why blood cells and proteins are not usually found in the filtrate.

5. Why are useful molecules like glucose and other nutrients found in the filtrate along with urea and other wastes?

6. Sometimes bacterial infection causes nephritis—an inflammation of membranes in the glomerulus and capsule. Large pores are created through which blood cells enter the nephron. What symptom would indicate this problem?
