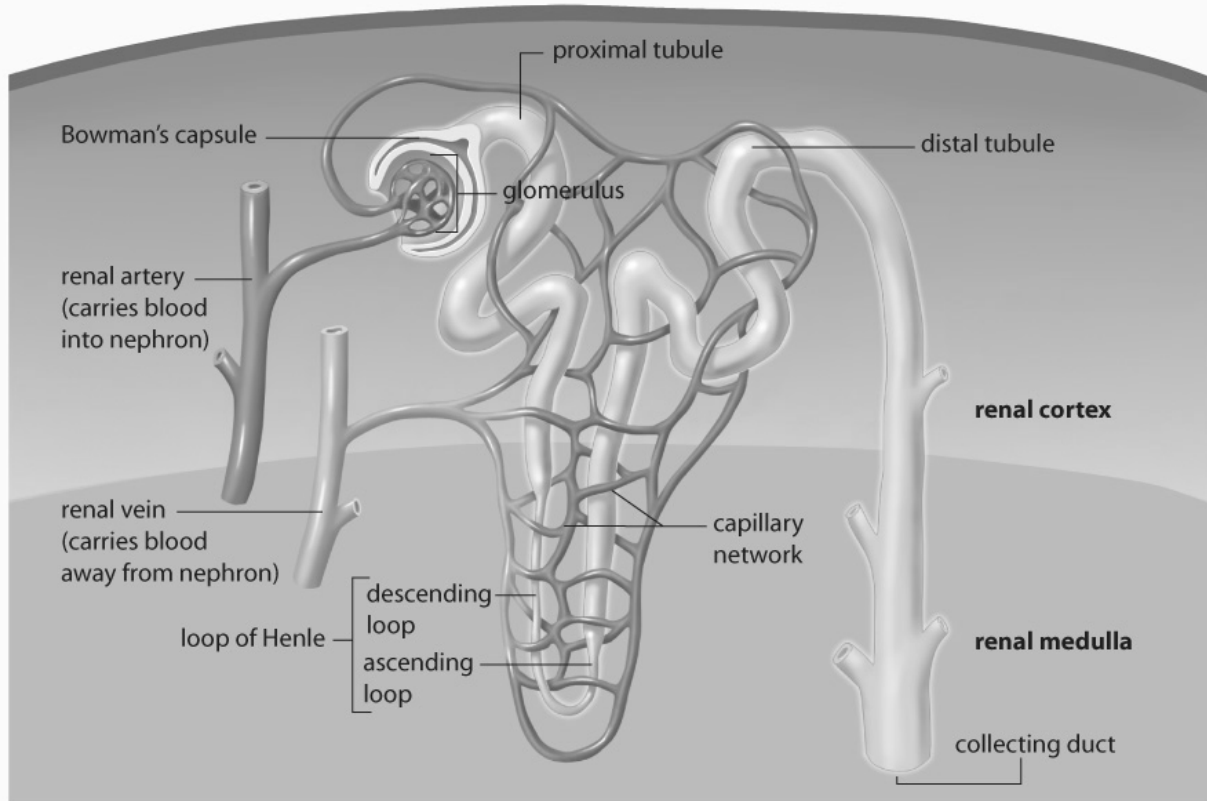
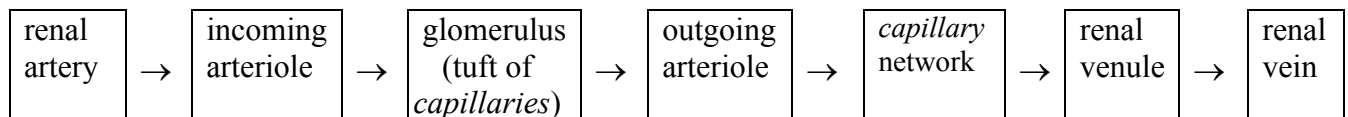


CHAPTER 9**OVERHEAD****Anatomy of the Nephron****BLM 9.1.3****An Overview of the Nephron and its Three Functional Regions**

The structures of the nephron are labelled here to help outline the processes by which blood becomes urine in the nephron. The word “proximal” (in proximal tubule) means *nearby* and refers to the fact that this part of the tubule is located *near* the Bowman’s capsule. The word “distal” (in distal tubule) means *distant* and refers to the fact that this part of the tubule is located more *distantly* from the Bowman’s capsule.

The arrangement of blood vessels associated with nephrons is unique. Unlike those found in most parts of the body, this system of vessels contains two capillary beds in sequence, with two kinds of arterioles. Blood flows around each nephron as follows:



This is an excellent example of the biological principle “Form follows function.” That is, the structure (form) of an organ matches the way it works. Once you have learned how the nephron cleanses blood, the significance of its structure and its double capillary beds will become clear.