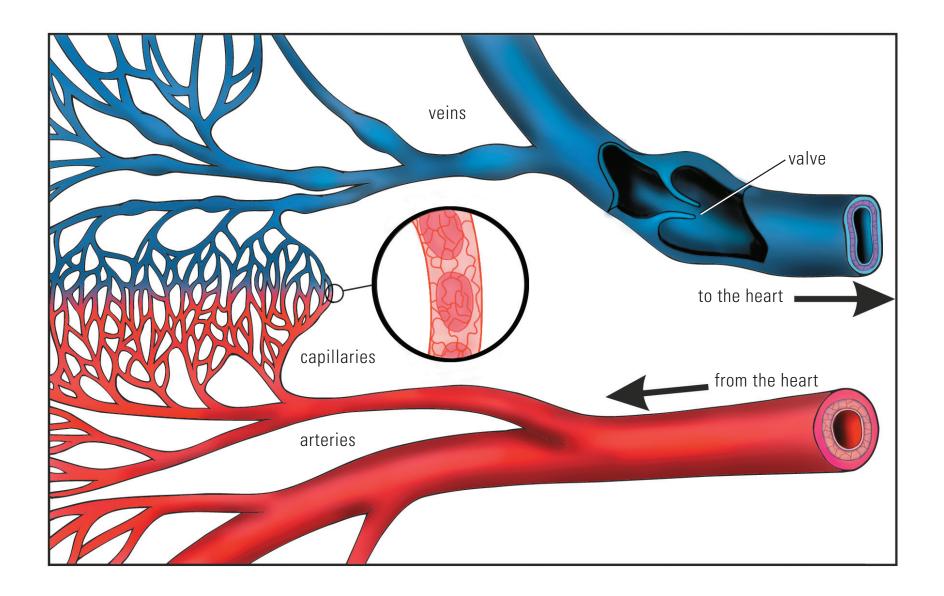
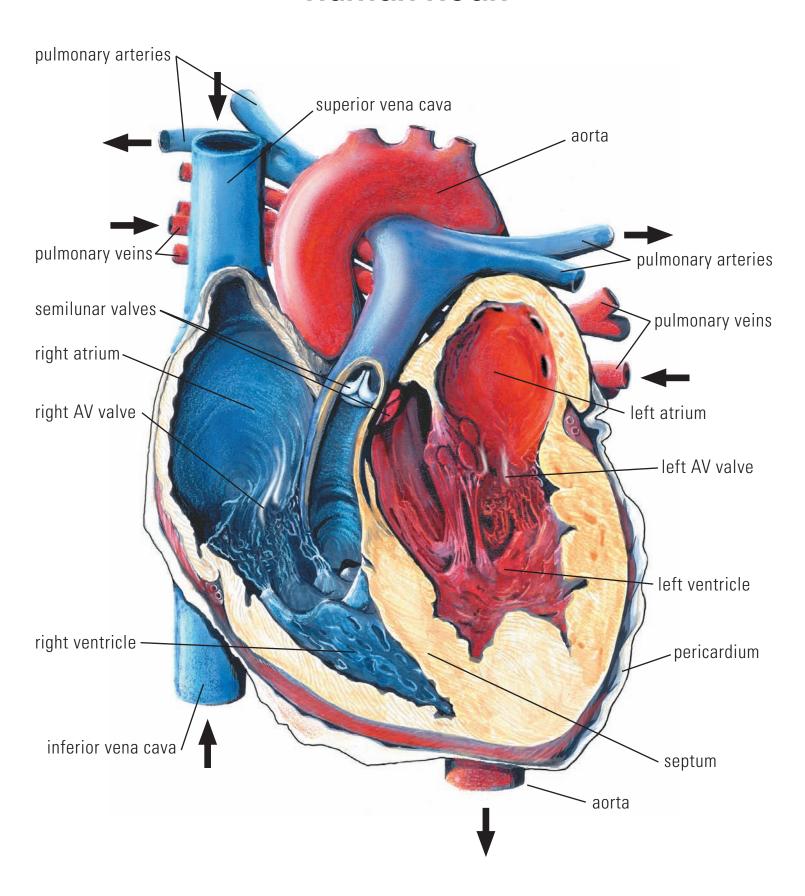
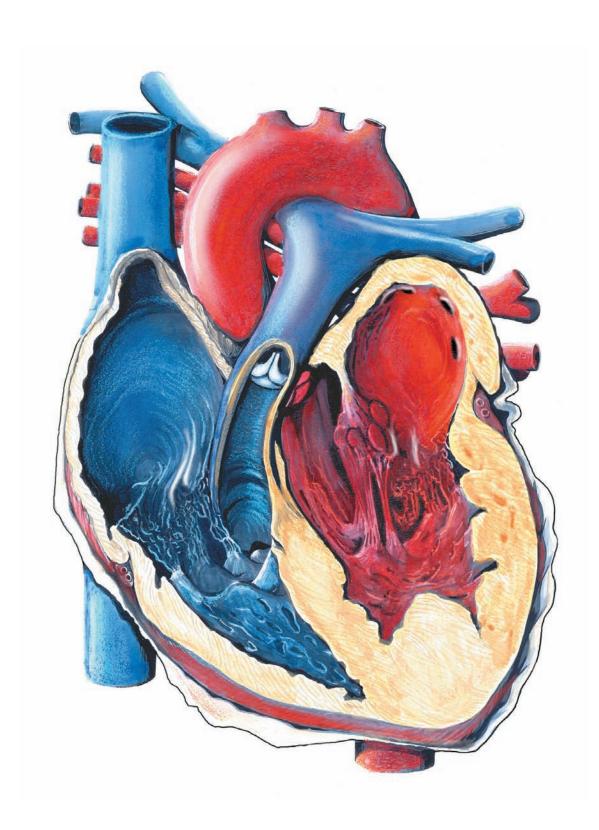
### **Blood Vessels**



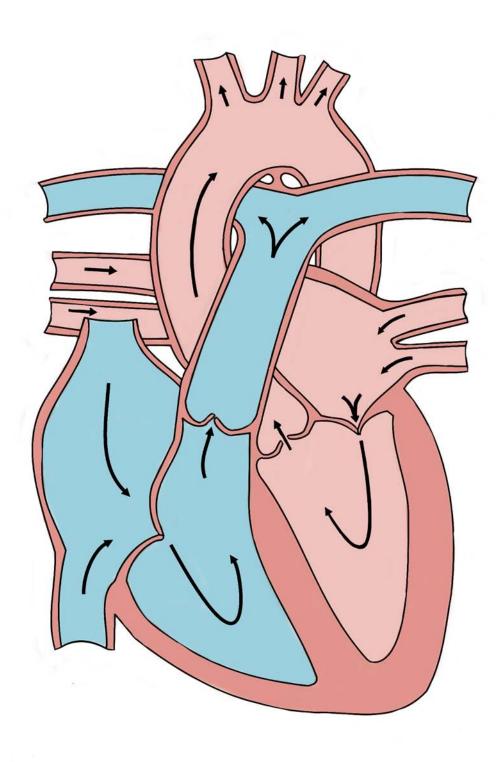
#### **Human Heart**



### **Human Heart**



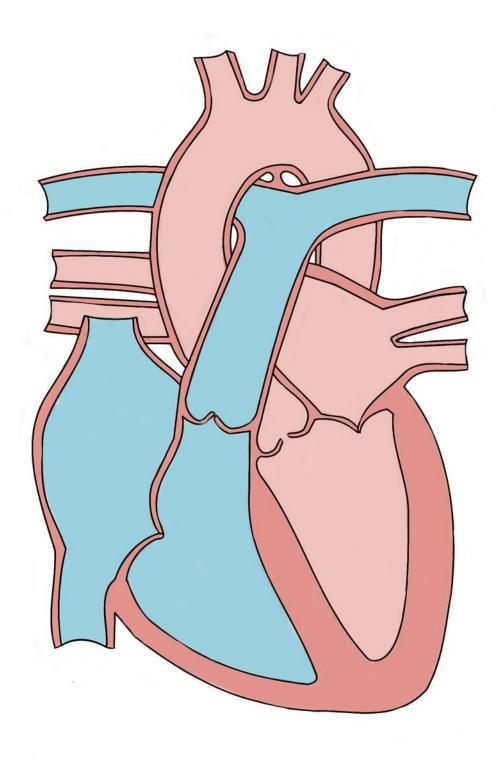
### Path of Blood in the Heart







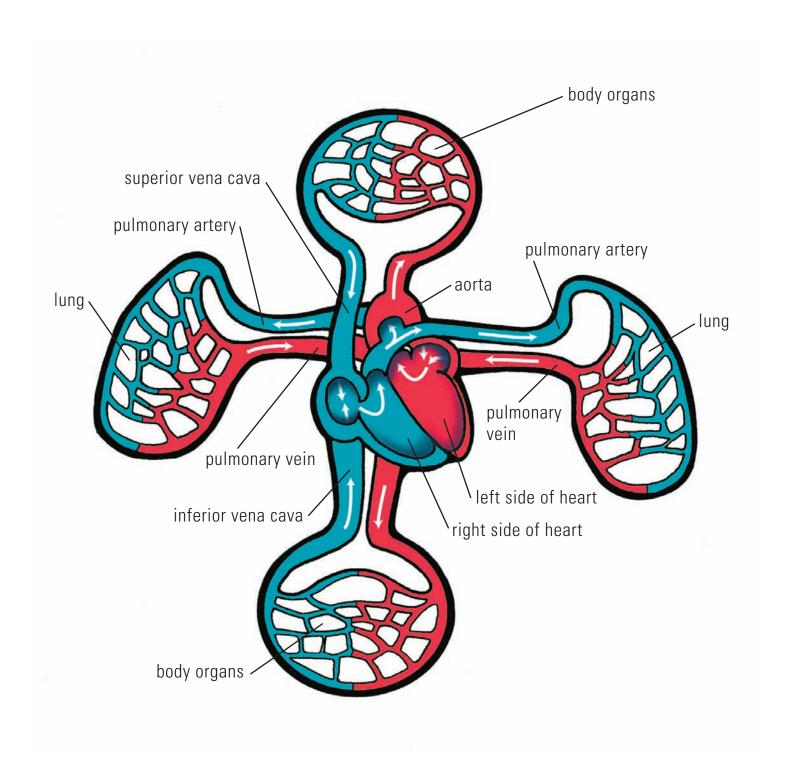
### Path of Blood in the Heart



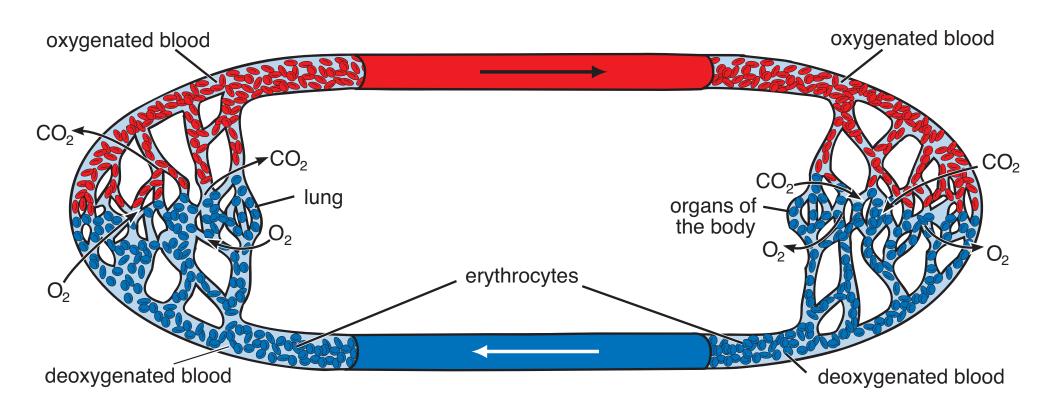




## Path of Blood in the Body



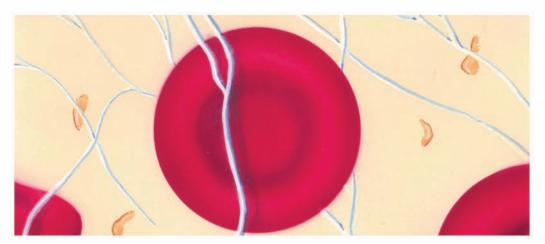
## **Exchange of Gases in Capillaries**



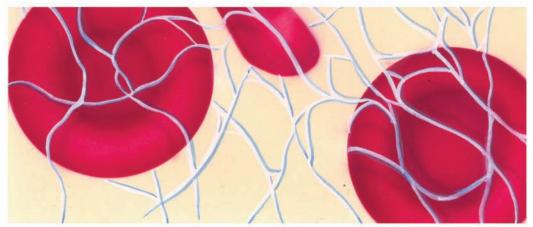
## **Blood Clotting**



Platelets rupture, releasing a chemical into the blood.

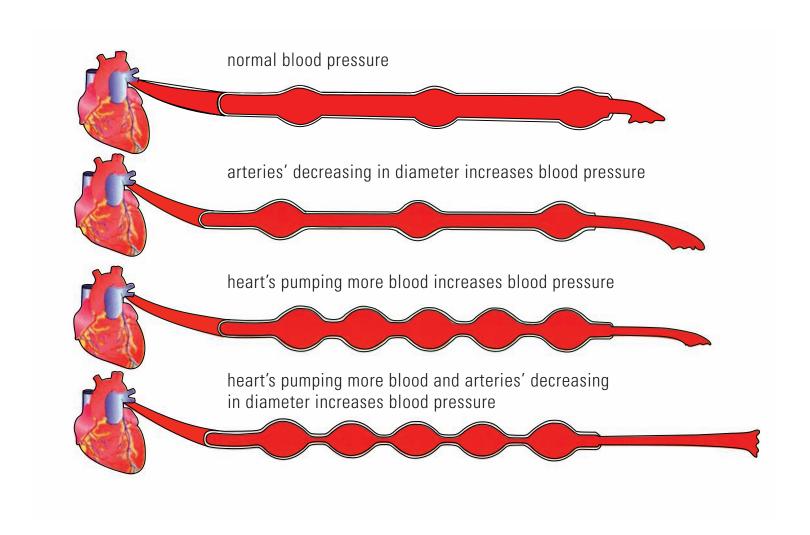


The chemical triggers the formation of protein fibers.

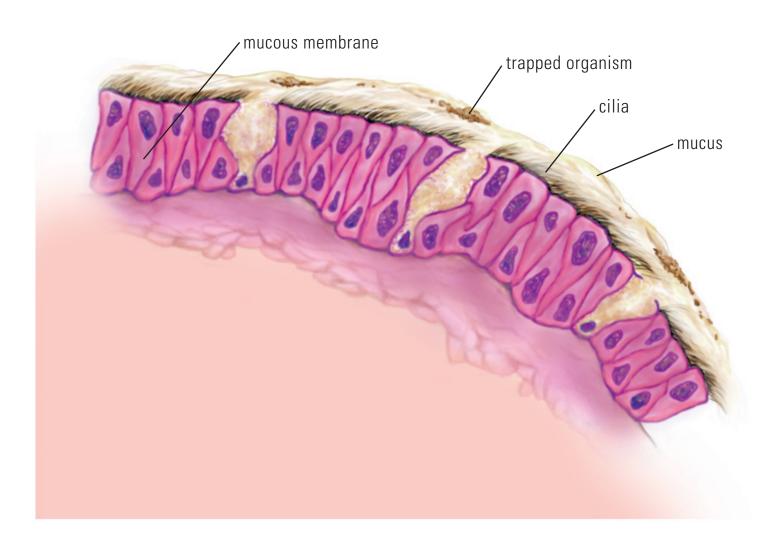


The protein fibers trap blood cells, forming a clot.

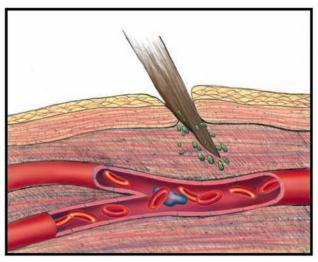
### **Blood Pressure**



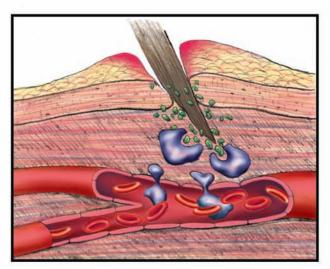
### Mucous Membrane with Cilia



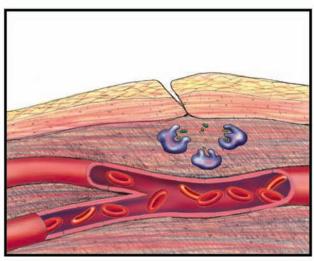
## **Splinter Wound**



Bacteria (green) enter the body on the end of a splinter.

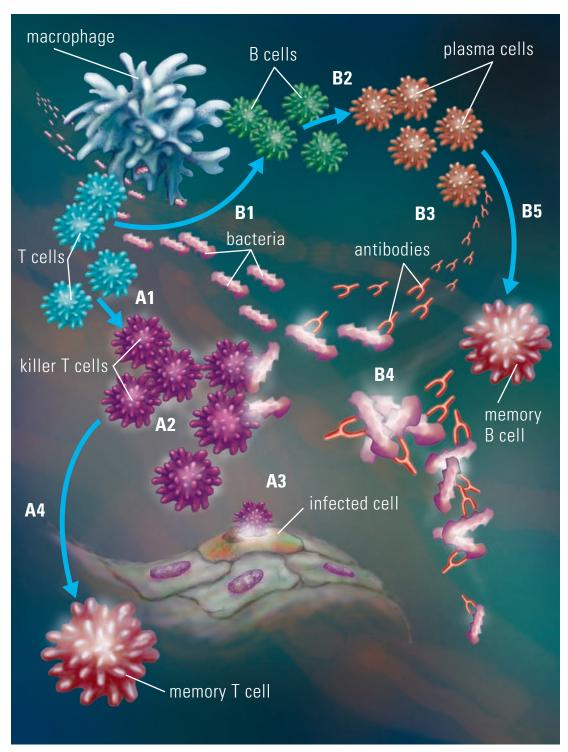


Macrophages (purple) squeeze through the capillary walls.



As the wound heals, the macrophages finish destroying the bacteria.

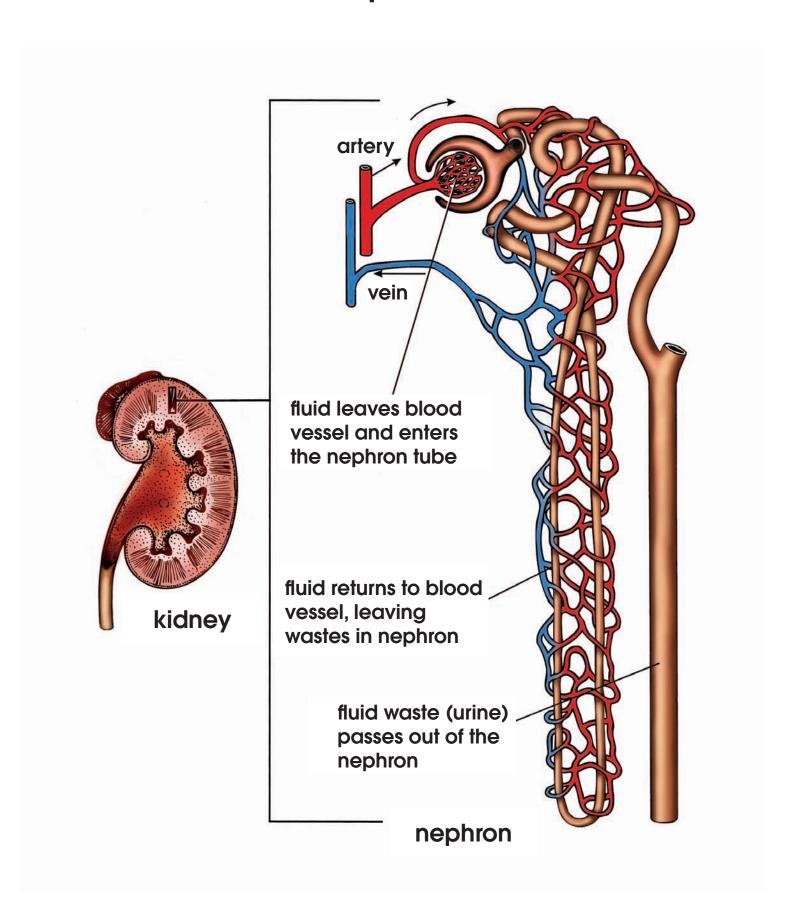
### **Human Immune System**



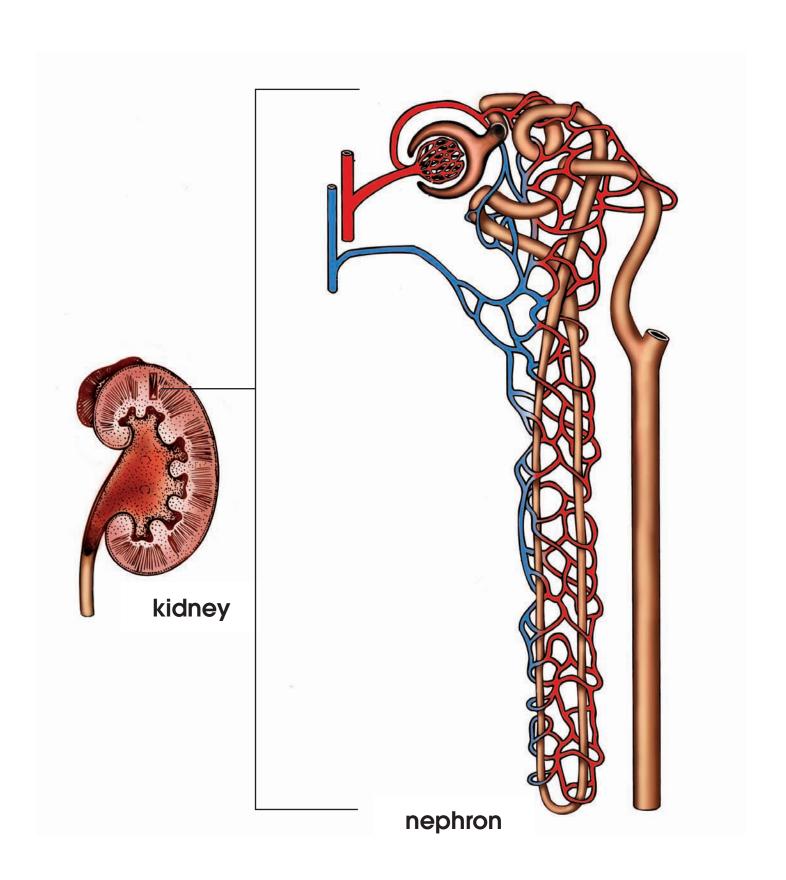
The immune response: When macrophages identify a foreign substance (bacteria), two series of events begin to happen simultaneously. T cells activate killer T cells (A1) as well as B cells (B1). Some killer T cells attack the bacteria (A2), and others attack infected cells (A3). Meanwhile, the activated B cells produce plasma cells (B2), which

in turn produce antibodies (B3). The antibodies attack the invading bacteria (B4). After the bacteria have been destroyed, some T cells (A4) and some B cells (B5) become memory cells to guard against future infections. Leftover antibodies also remain in the bloodstream, enhancing the body's immunity.

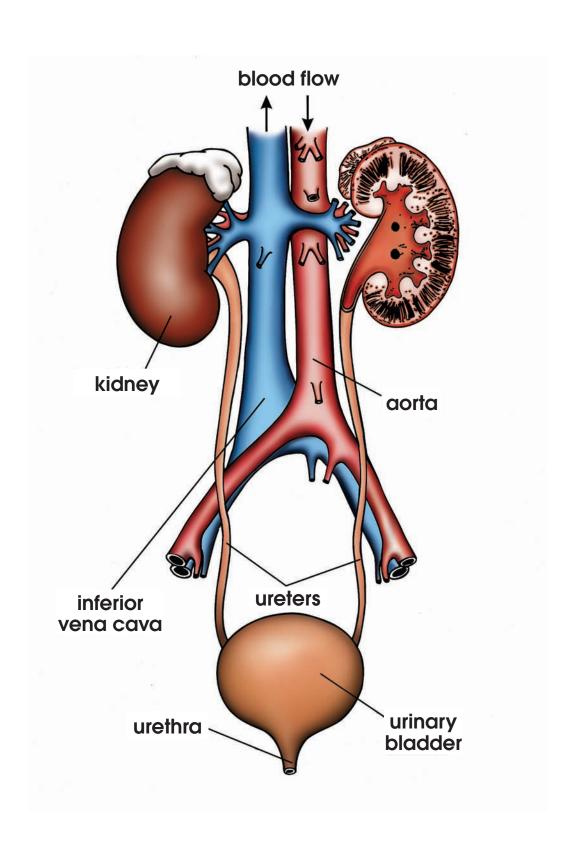
## **Nephron**



# **Nephron**



## **Human Excretory System**



# **Human Excretory System**

