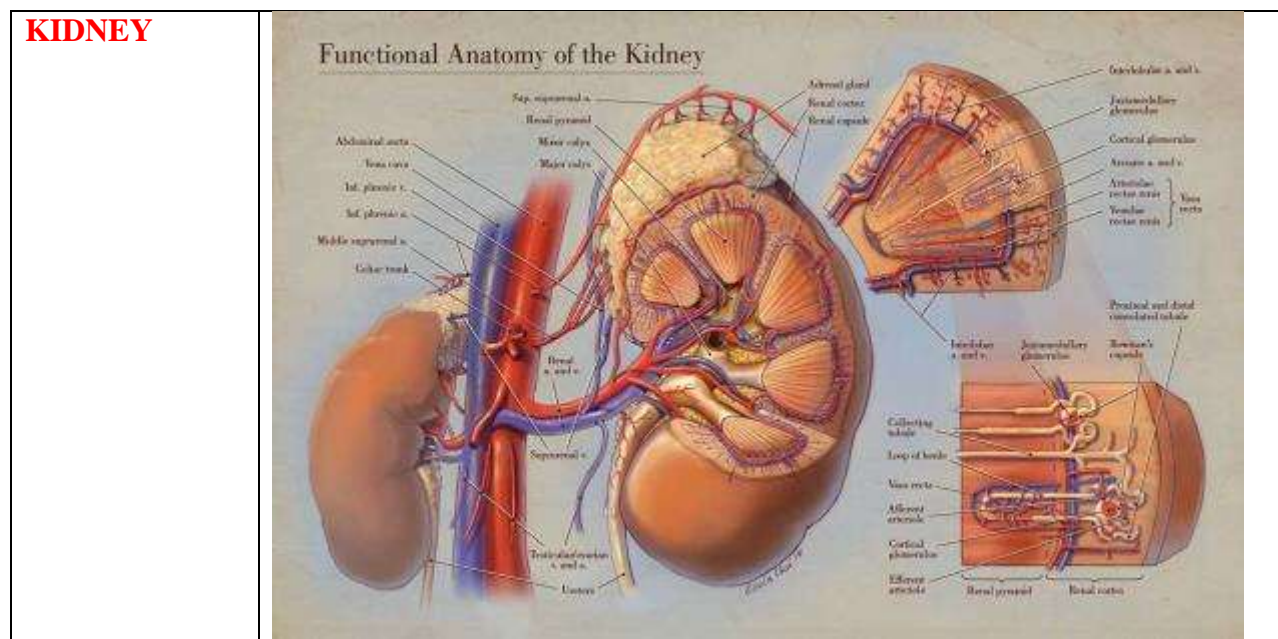


X. Relevant Normal Features

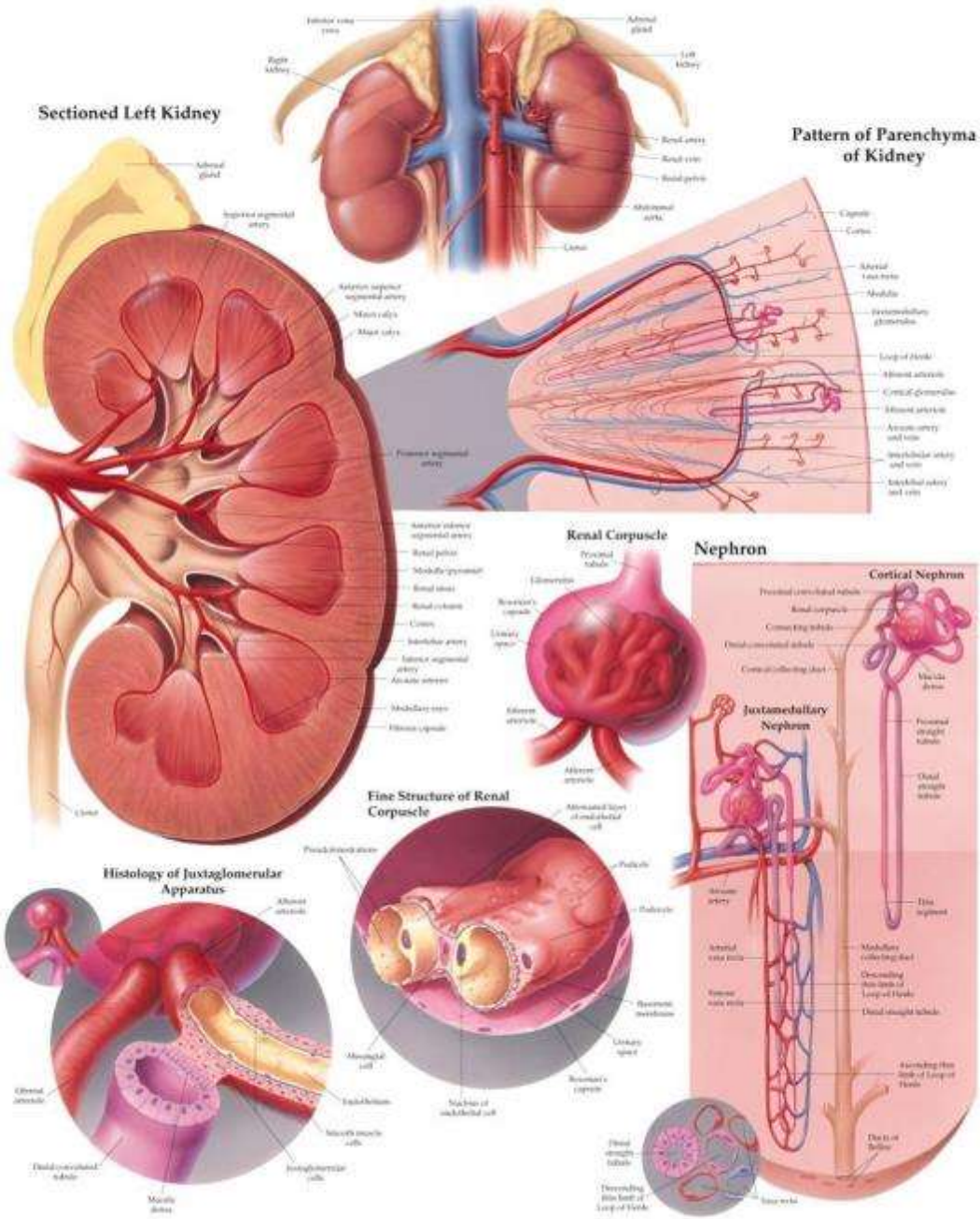
93

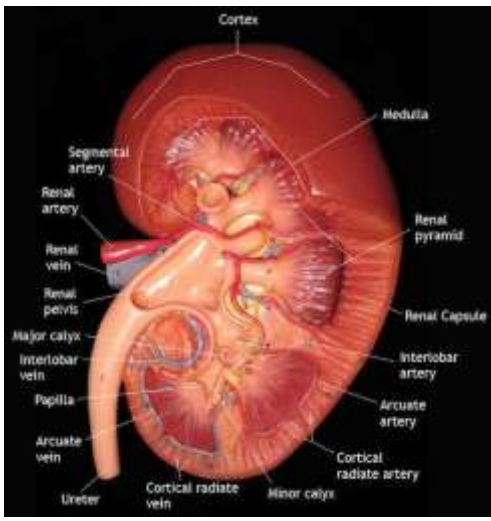
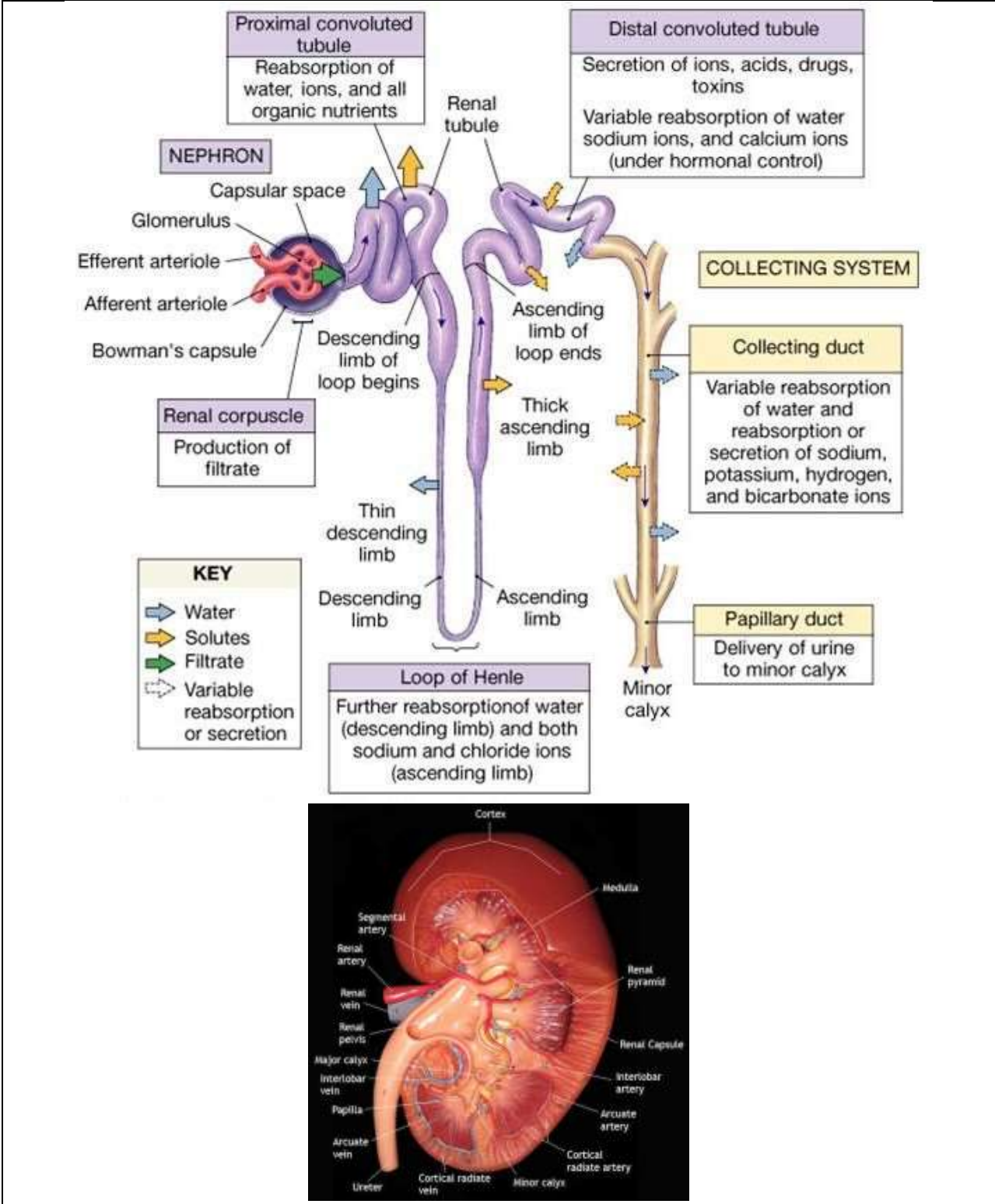


Each is situated to one side of upper part of abdomen

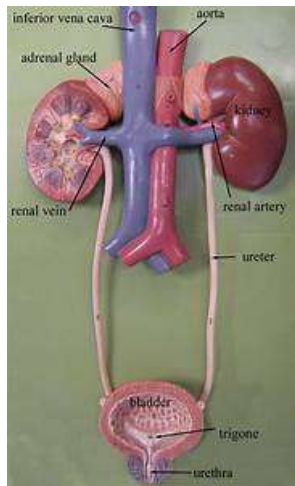
Weight:	Right :	125-170 g. (average is 140 (male)) 115-155 g. (average is 135) (female)
	Left :	150 g. (male) (the average) 140 g. (female) (the average) Longer, Narrower & Heavier
Shape:	Bean-shaped or ovoid	
Measurements:	Right :	Length: 11 cm.
		Breadth: 6.2 cm.
		Thickness : 3.2 cm. (at middle)
	Left :	Length: 11.5 cm.
		Breadth : 6 cm.
		Thickness : 3.2 cm.
Consistence:	Soft Pliable	
Colour:	Reddish-brown	
Borders:	1 Medial:	Concave (centre) Convex (upper and lower ends)
	2 Lateral:	Convex
Surfaces:	Smooth	Anterior Posterior

THE KIDNEY

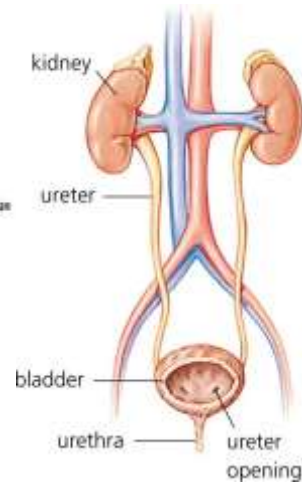
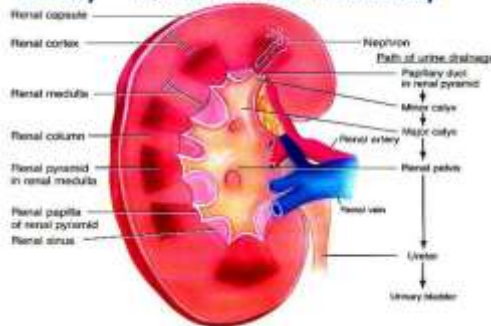




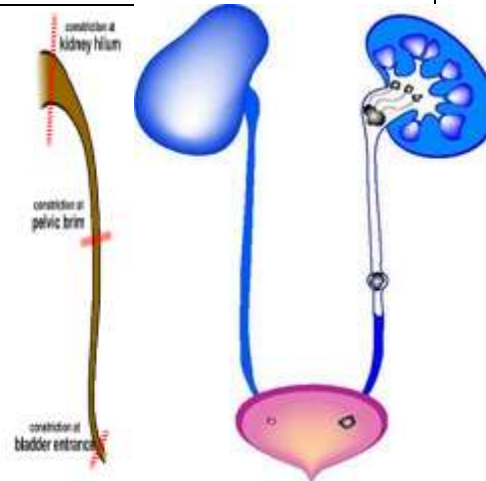
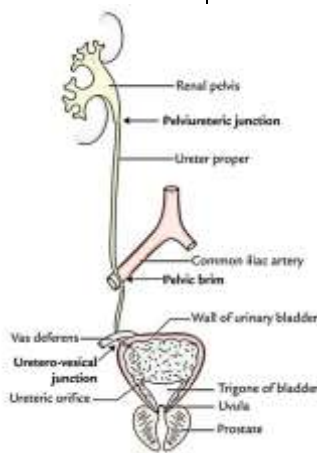
On section	Cortex :	1 cm.-thick (may be 1.2 or 1.3) Next to surface-capsule Reddish-brown Uniformly-granular Faintly-streaked Soft		
	Medulla :	Cortex : Medulla = 1:3 Next to sinus and cortex Shows renal pyramids		
		Renal pyramids	Pale-gray masses Triangular Streaked (base- > apex) Separated from one another by renal columns (extensions of cortical substance showing arterioles) Well-defined from the medulla	
	Renal papillae :	Apical parts of pyramids projecting into calyces		
Other features				
Kidney	Enclosed in a thin fibrous capsule Easily peeled off because of little areolar tissue			
Hilum	Transmits	Renal	- Pelvis - Vessels - Nerves	
<ul style="list-style-type: none"> • On entering the hilum, the renal artery divides into numerous interlobar arteries. • At the cortico-medullary junction, the arteries cross the base of the pyramids parallel to the cortical surface (arcuate arteries), which give rise to the interlobular arteries and cortical vessels. 				
Sinus of kidney	Occupied by :	<ul style="list-style-type: none"> • Fat • Veins • Arteries • Lymph vessels Nerves Pelvis of ureter Calyces		
Peri-nephric fat	<ul style="list-style-type: none"> • Inside renal fascia • Thickest at borders 			



Kidney - External Macro Anatomy



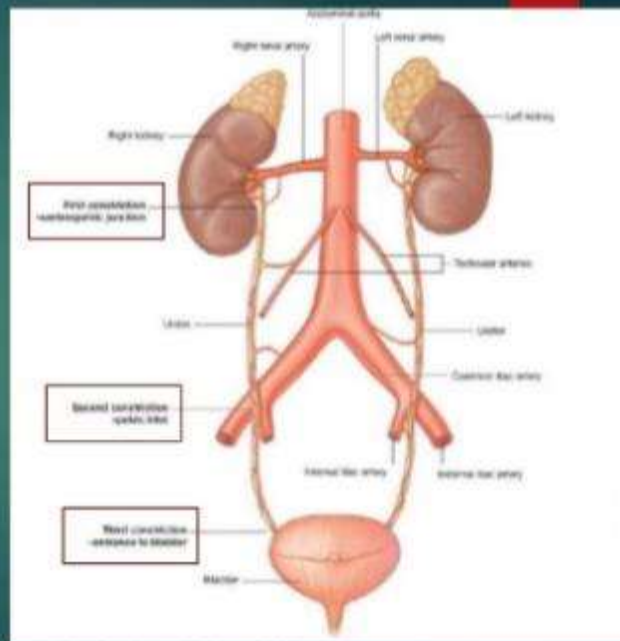
RENAL PELVIS AND URETER			
(a) RENAL PELVIS			
<i>Begins in sinus of kidney</i>		<i>The lesser calyces (10) → greater calyx</i>	
		<i>The greater calyces (2) unite → renal pelvis</i> <i>(dilated commencement of ureter)</i>	
	<i>Funnel-shaped</i>		
	<i>Capacity :</i>	<i>7-10 cc.</i>	
(b) URETER			
<i>A cylindrical muscular tube in abdomen proper & pelvis →</i> <i>Commences as an expansile funnel-shaped dilatation (pelvis of ureter)</i>			
<i>Thick-walled</i>			
<i>Whitish gray</i>			
<i>Slightly constricted, at</i>			
<ol style="list-style-type: none"> <i>1. Emergence from pelvis (ureteropelvic junction)</i> <i>2. Crossing of external iliac artery</i> <i>3. Entrance into the bladder</i> 			
	<i>Length :</i>	<i>20-30 cm.</i>	
	<i>Diameter :</i>	<i>0.5-0.6 cm.</i>	
<i>Lumen:·</i>	<i>Narrow</i>		
	<i>Lined by mucosa :</i>	<ul style="list-style-type: none"> <i>- Smooth</i> <i>- Few longitudinal folds</i> 	



Ureter

► Ureter has **3 Constrictions**:

1. Pelvic-ureteric junction
2. When it crosses external iliac vessel
3. Vesico-ureteric junction



• In addition to above three sites of constrictions, two more sites of constrictions are described by the surgeons.

1. At juxtaposition of the vas deferens/broad ligament.
2. At the ureteric orifice.

