



KIDNEY

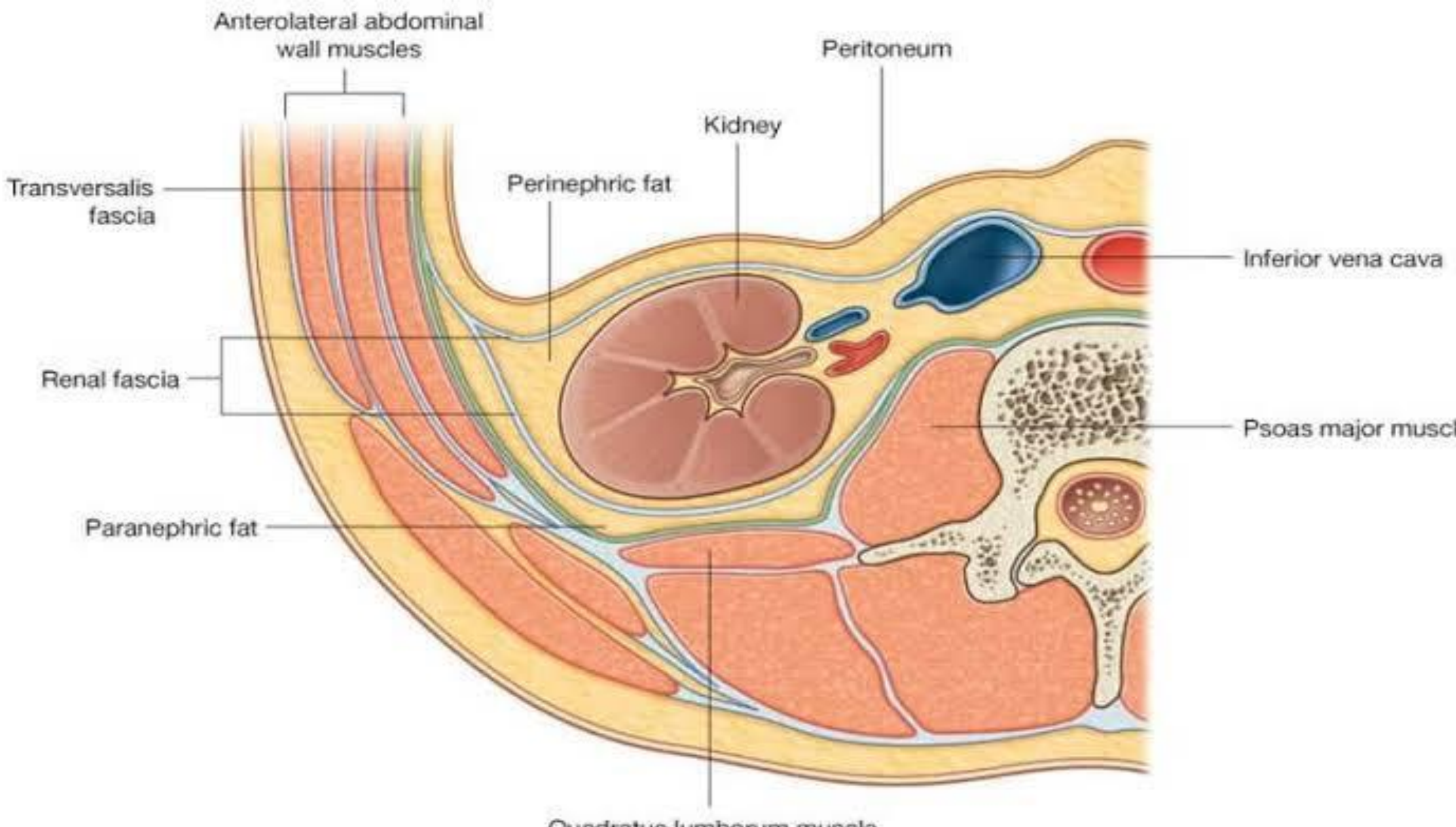
MARYAM SABA

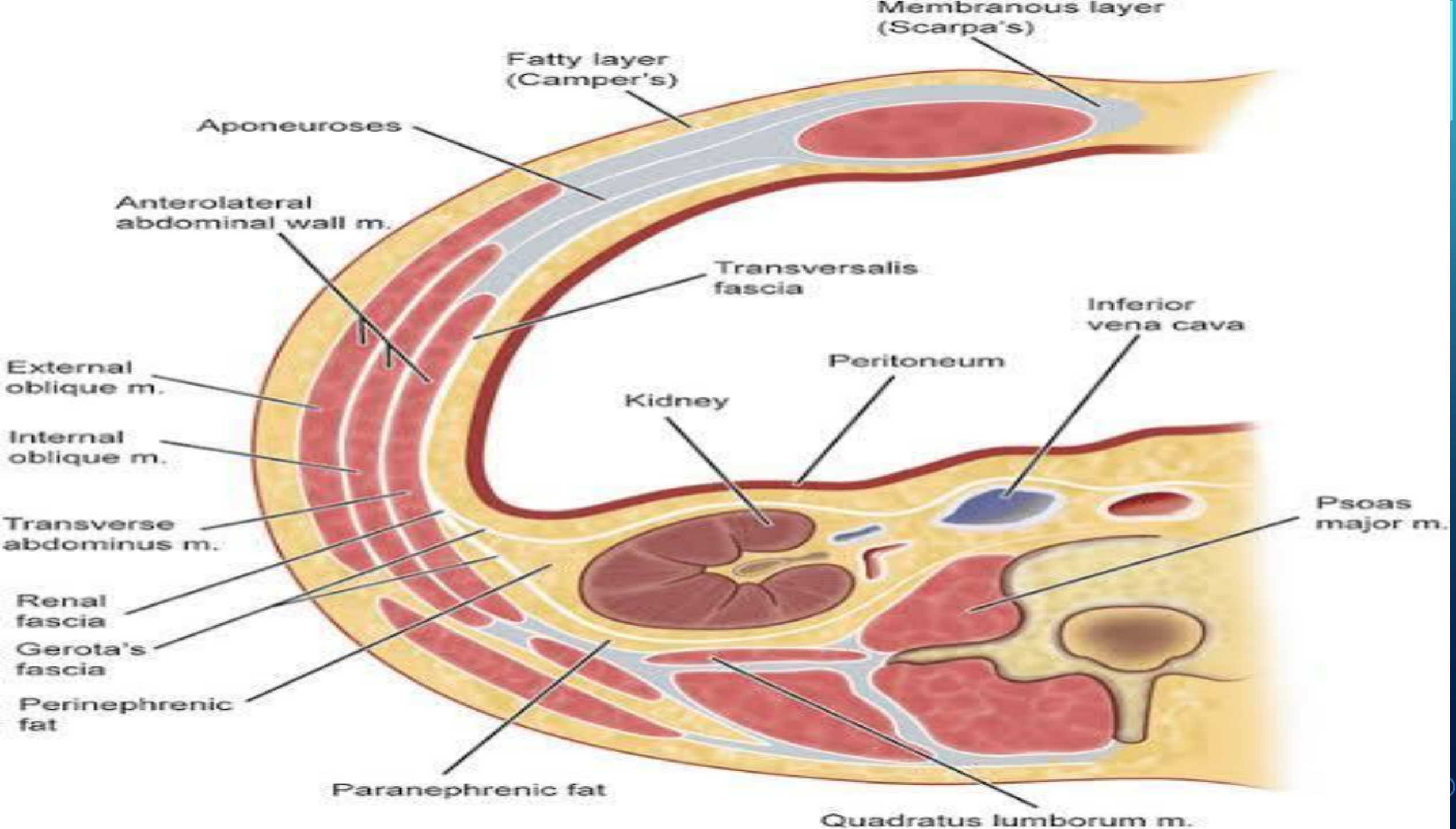
KIDNEY

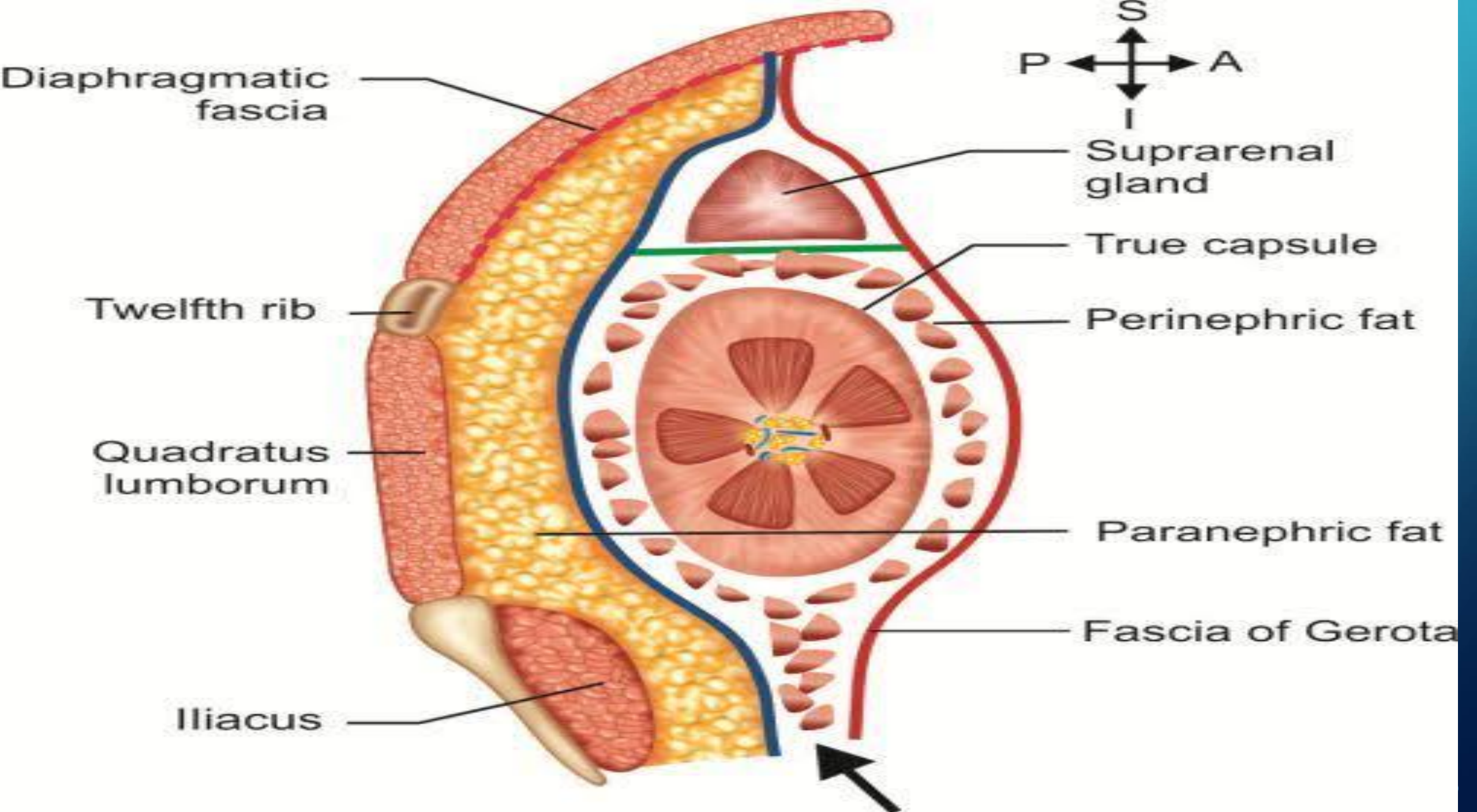
- Bean shaped retroperitoneal organ
- In supine position extend from T12 to L3
- Right kidney lower than left because of liver lobe
- Support by muscles of posterior abdominal wall and extraperitoneal fat and fascia.

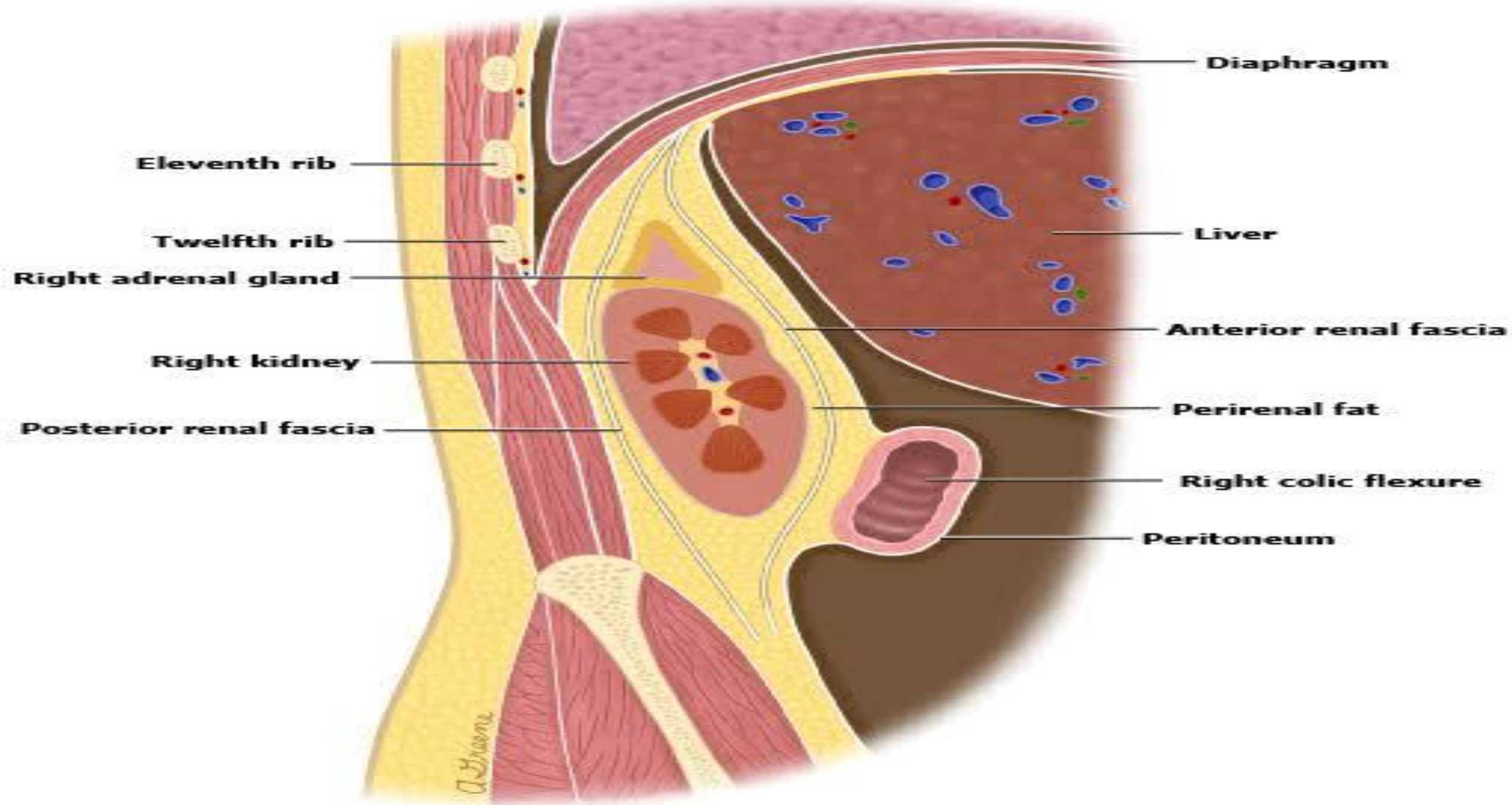
COVERINGS:

- **Fibrous capsule**
- **Perirenal fat**
- **Renal fascia**
- **Pararenal fat**



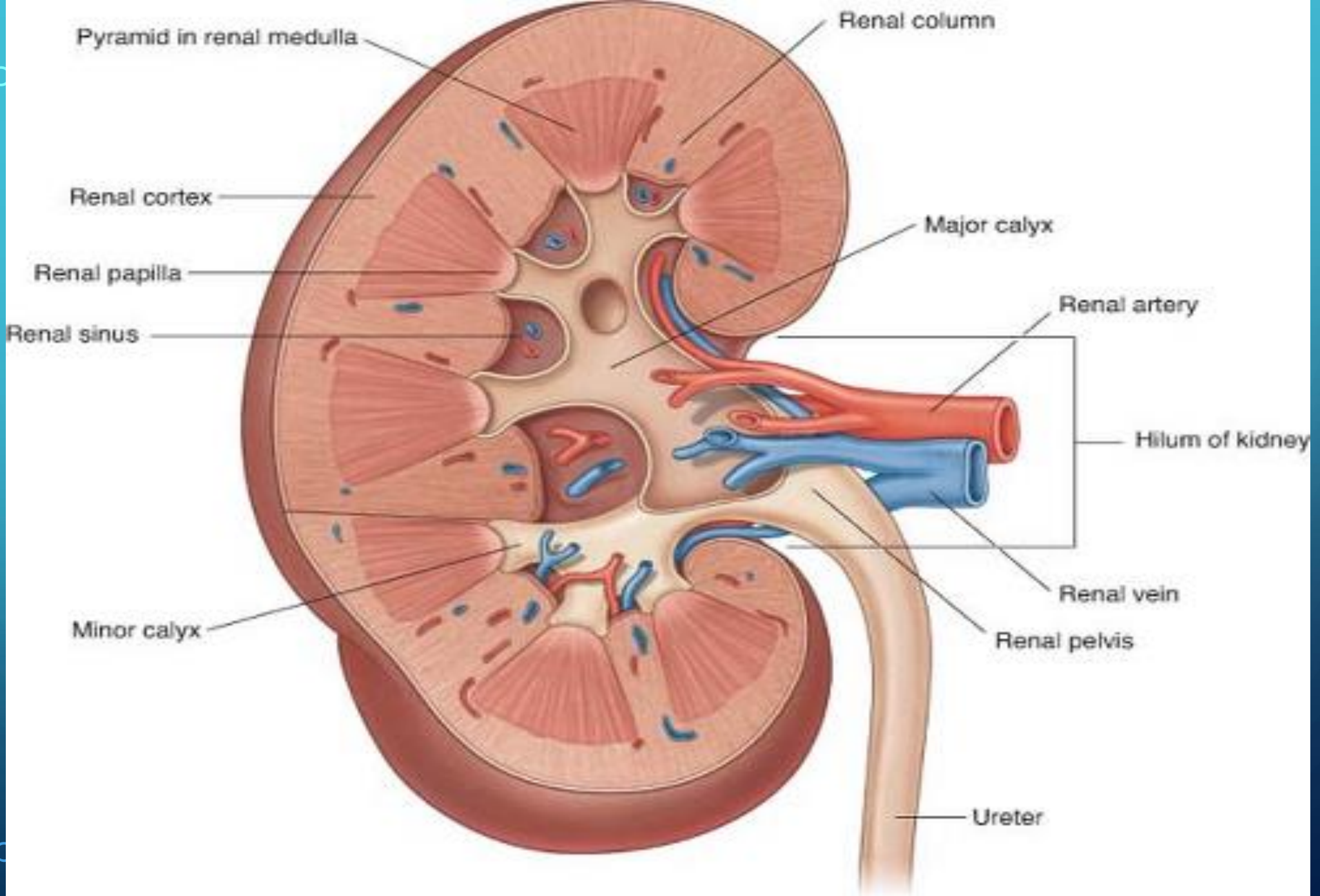






STRUCTURE:

- Each kidney has a concave medial border and convex lateral border
- HILUM is present on medial border of each kidney
- The kidney has an :
Outer cortex
Inner medulla



HILUM:

- Hilum is continuous with the renal sinus.
- Hilum transmit from front to backward:

Renal vein

2 branches of renal artery




Ureter

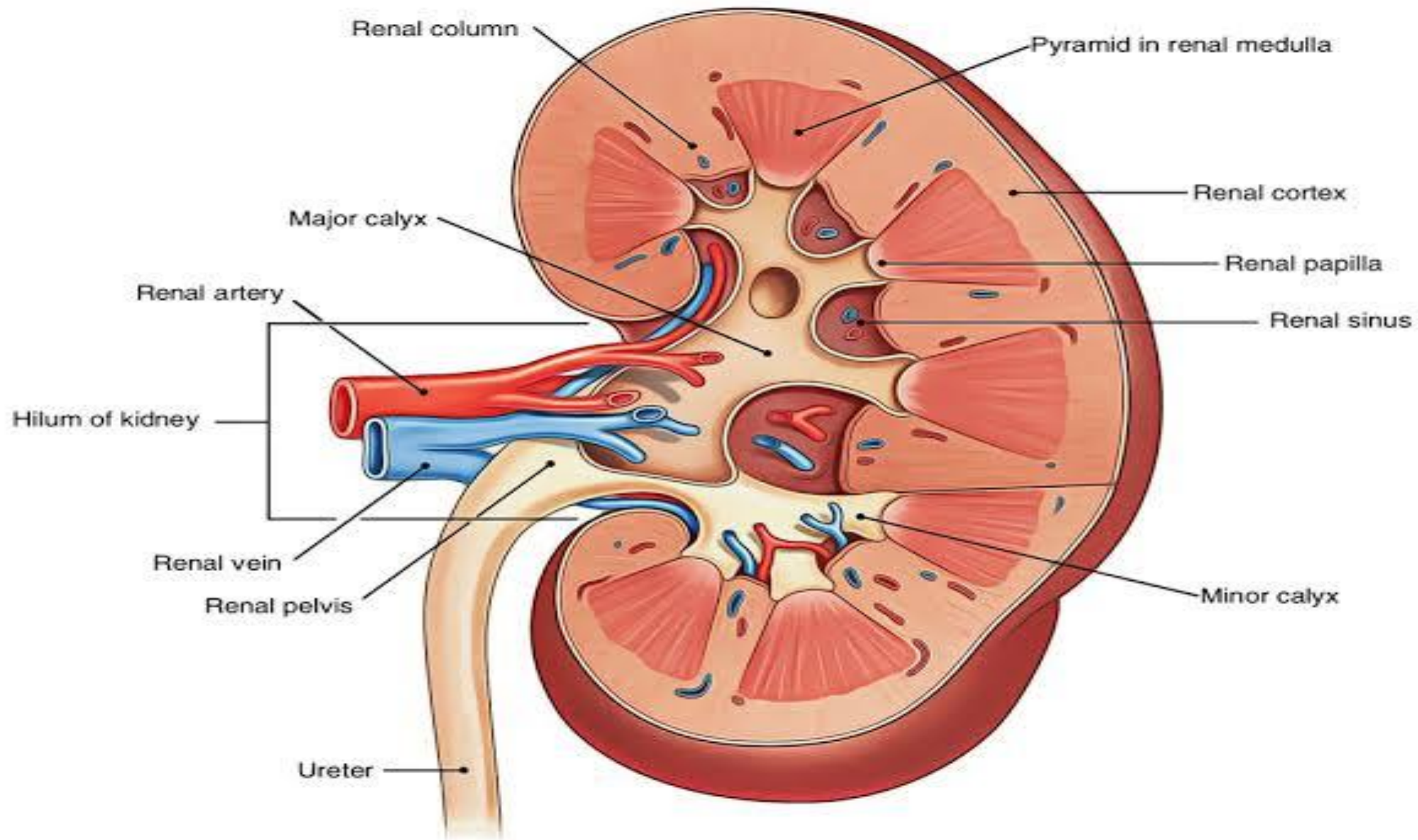
CORTEX AND MEDULLA:

- Renal cortex is a continuous band of pale tissue that completely surrounds the renal medulla.
- Extension of renal cortex divide the medulla into pyramids
- The base of pyramids are directed towards renal cortex and apex towards renal sinus



CONT;

- Renal papilla (apex of pyramid) is surrounded by a minor calyx.
 - Minor calices unite in renal sinus to form a major calyx.
 - 2 or 3 major calices unite to form renal pelvis.
- 
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RELATIONS:

- Anterior relations of RIGHT kidney:

Suprarenal gland, liver, 2nd part of duodenum, right colic flexure.

- Anterior relations of LEFT kidney:

Suprarenal gland, spleen, stomach, pancreas, left colic flexure, coils of jejunum.

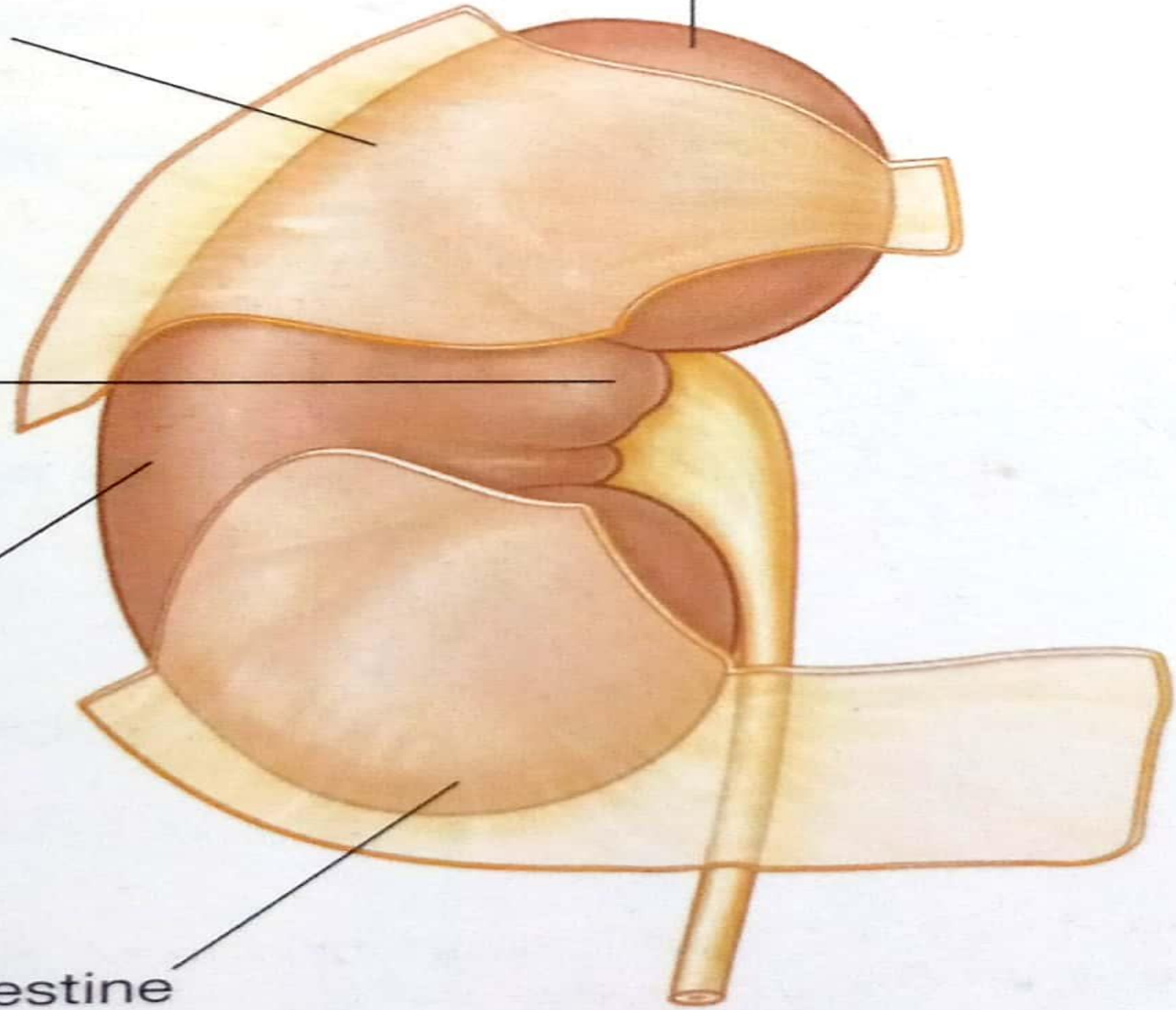
Right suprarenal gland

Liver

Descending part
of duodenum

Right colic flexure

Small intestine



Left suprarenal gland

Stomach

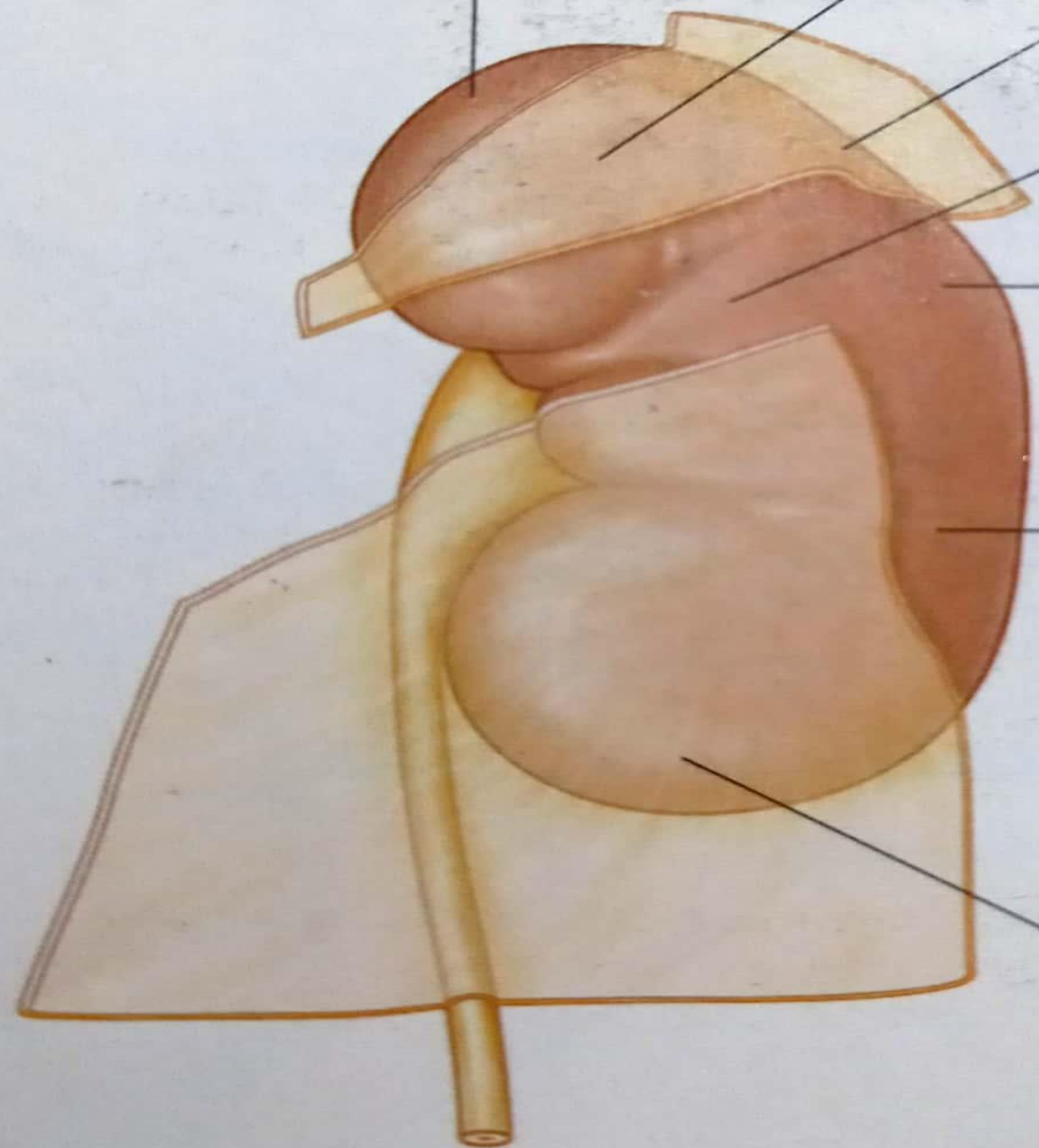
Spleen

Pancreas

Left colic flexure

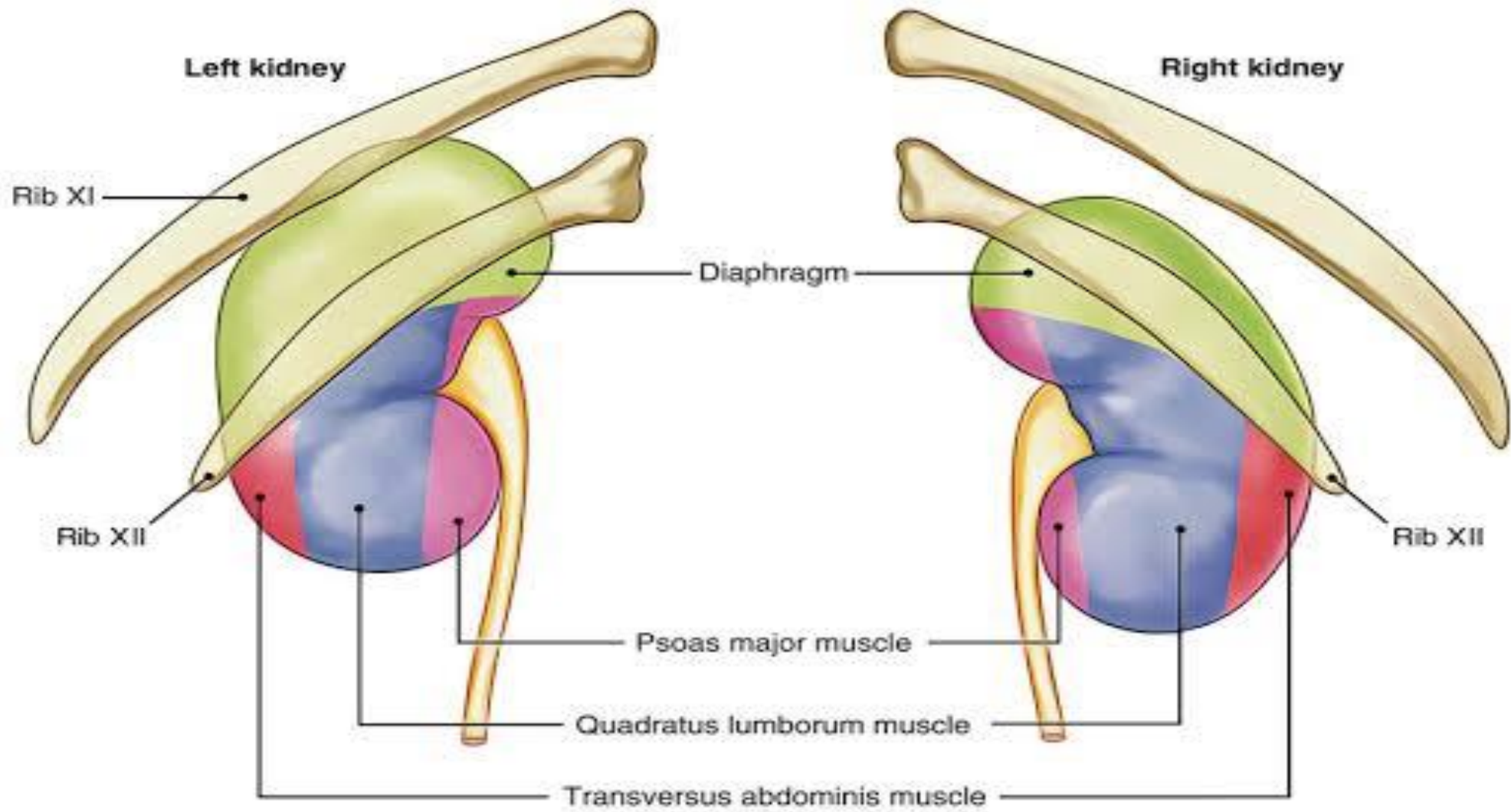
Descending colon

Jejunum



POSTERIOR RELATIONS:

- Diaphragm, costodiaphragmatic recess of pleura, ribs (12th rib for right kidney and 11 and 12th both for left kidney), psoas, quadratus lumborum, transversus abdominis, subcostal, iliohypogastric and ilioinguinal nerve



ARTERIES AND VEINS:

- Renal arteries and renal veins
- Renal artery >> 5 segmental arteries >> lobar arteries >> interlobar arteries >> arcuate arteries >> interlobular arteries >> afferent glomerular arterioles

Intrarenal Arteries and Renal Segments

