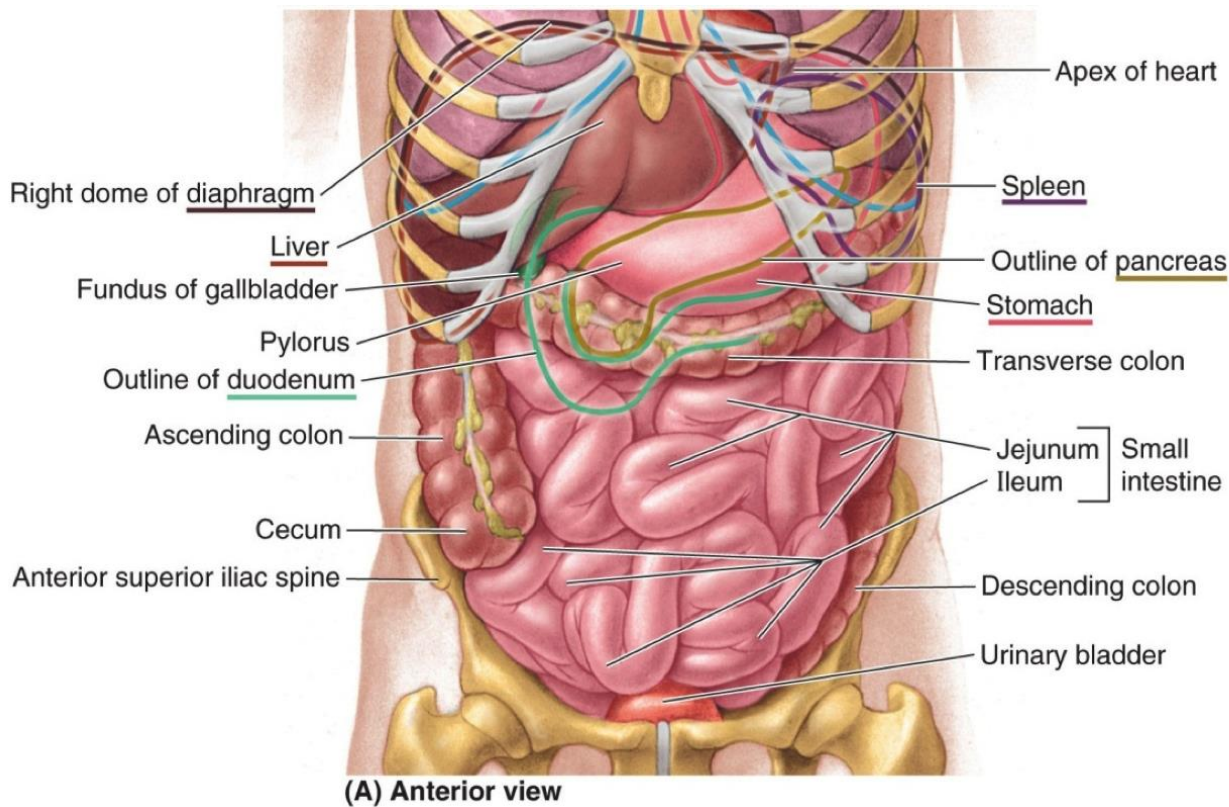


SPLEEN

- * **Size:** 1x 3 x 5 inches.
- * **Site :** in the left hypochondrium .

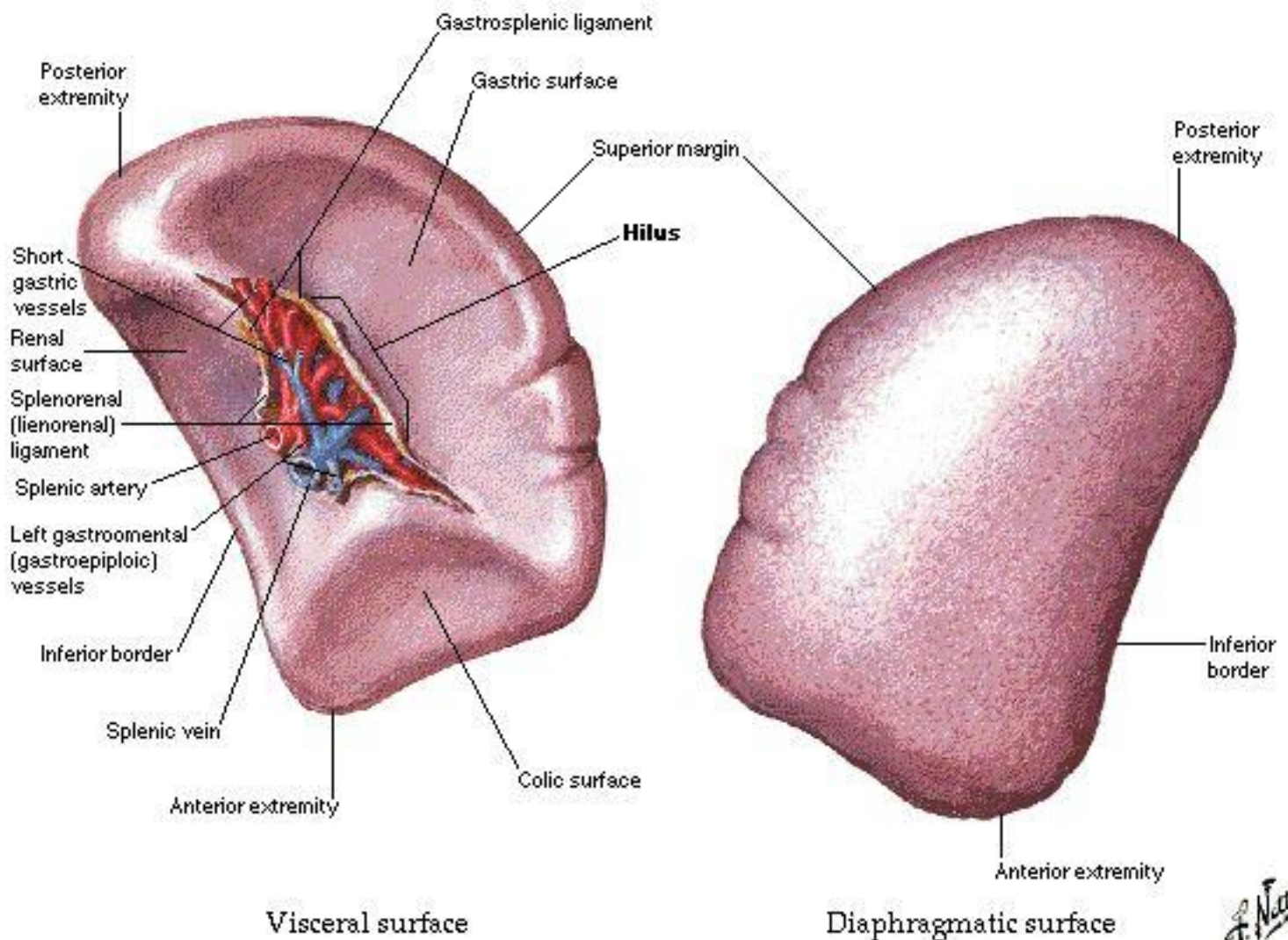


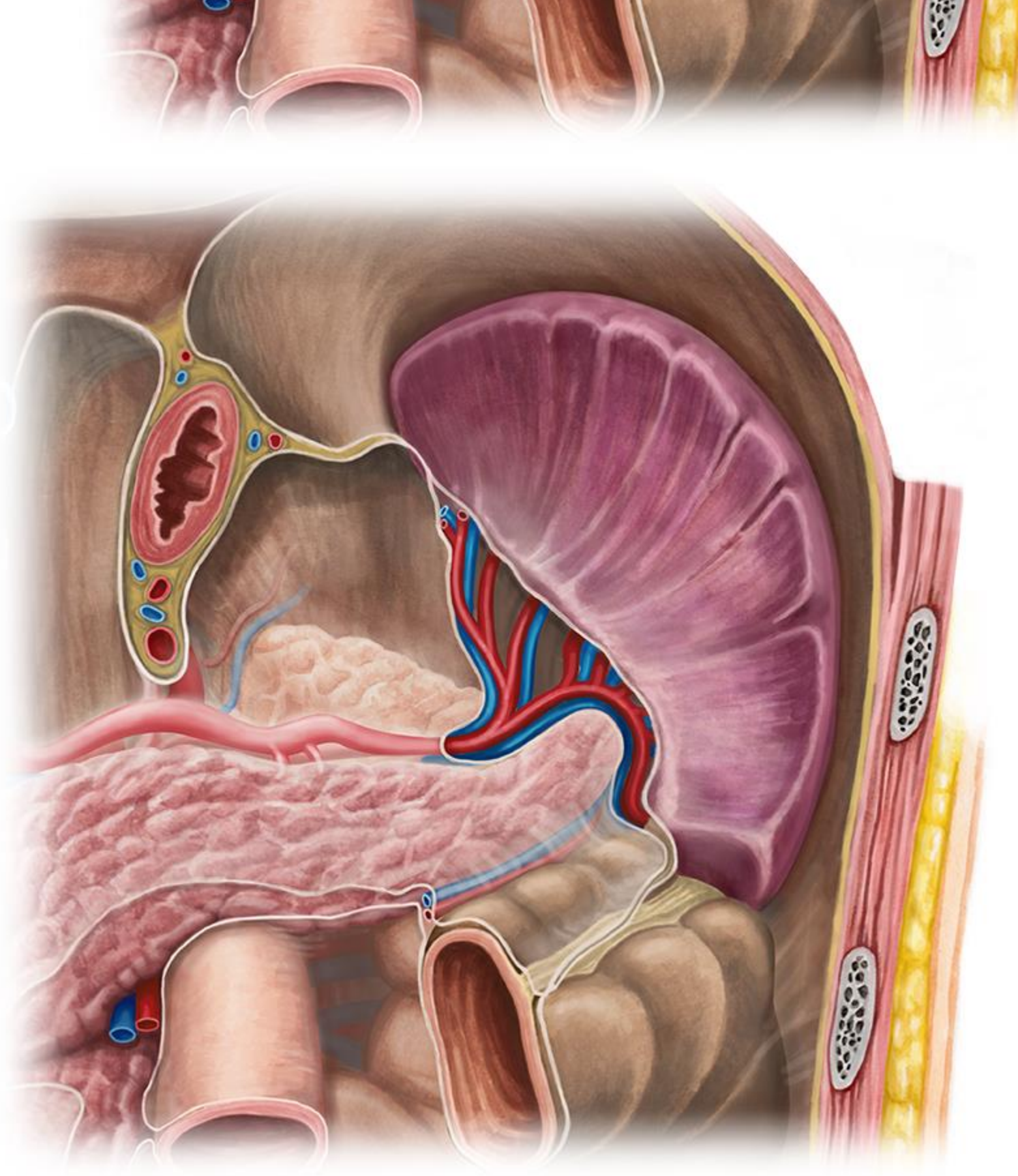
- * **Shape:** It has 2 borders, 2 ends, 2 surfaces:
 1. **Diaphragmatic surface:** Related to diaphragm which separates it from lower part of left pleura, left lung , ribs & intercostal muscles.
 2. **Visceral surface :** Presents the hilum & 4 impressions:
 - a. **Colic impression:** anterior to the hilum , near lateral end & related to left colic flexure.
 - b. **Pancreatic impression:** just below the lateral end of the hilum , related to the tail of pancreas.
 - c. **Renal impression:** below hilum, related to front of left kidney.
 - d. **Gastric impression :** above the hilum & related to the fundus of the stomach.

3. **Medial (posterior) end** is tapering & directed upwards, backwards & medial.
4. **Lateral (anterior) end** is broad & directed downwards & laterally.
5. **Superior border**: Sharp and notched (may be multiple).
6. **Inferior border**: Rounded and smooth.

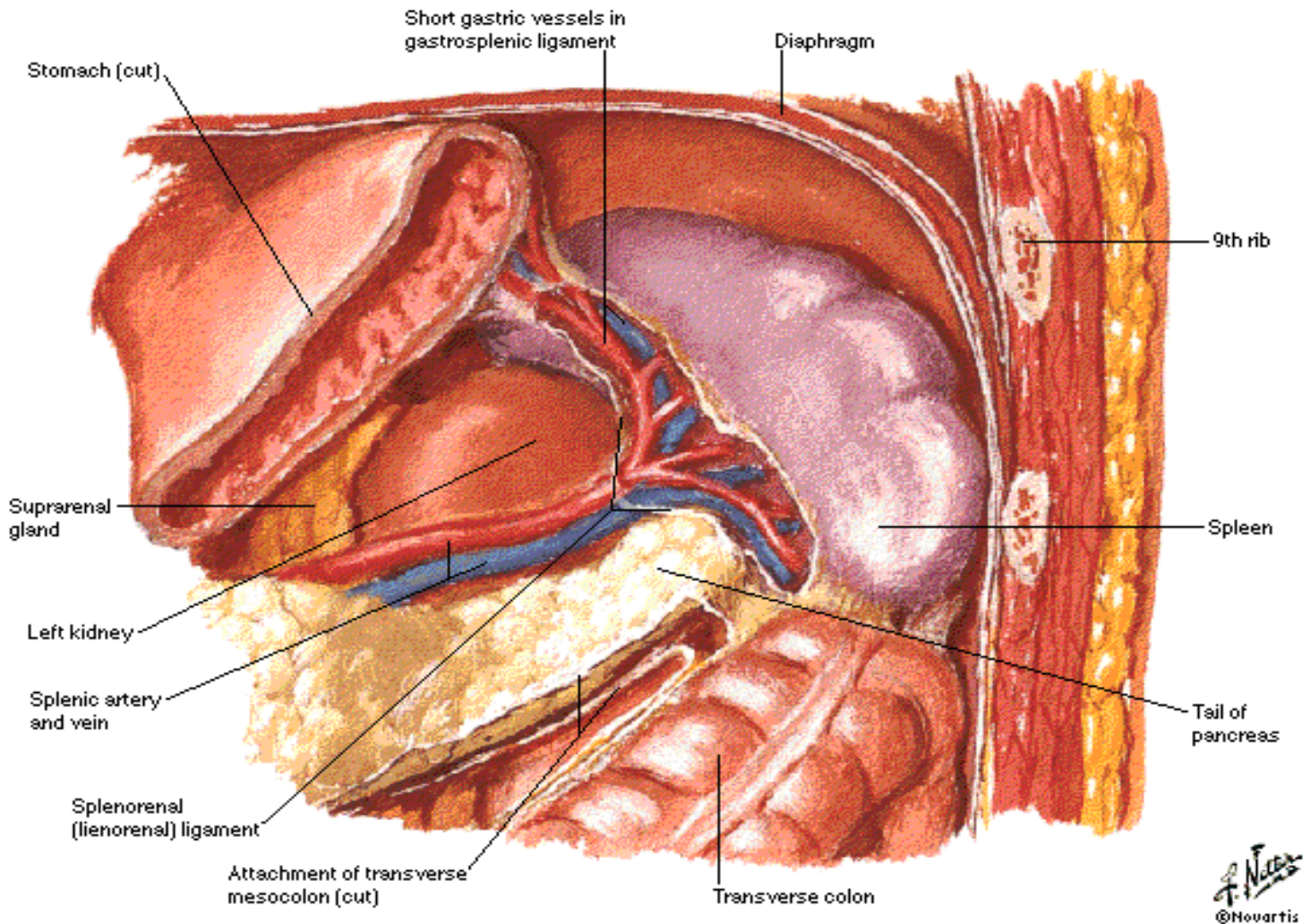
Spleen

Visceral and Diaphragmatic Surfaces





Spleen in Situ



- * **Surface anatomy:** It lies opposite left 9, 10, 11 ribs, its medial end lies 1.5 inch from midline posterior & its lateral end in the left mid-axillary line.
- * **Blood supply:** Splenic artery (arises from the coeliac trunk, tortuous, runs on the upper border of pancreas) & splenic vein (runs behind the body of pancreas & joins the superior mesenteric vein to form the portal vein).
- * **Peritoneum:** nearly completely covered with. peritoneum & related to:
 1. **Gastro-splenic ligament:** contains short gastric & left gastroepiploic vessels.
 2. **Spleno-renal (Lieno-renal) ligament :** contains tail of pancreas & splenic vessels..
 3. **Phreno-colic ligament :** Support the spleen from below. This ligament direct the enlarged spleen towards the right iliac fossa.

Anterior vagal trunk,
hepatic branch

Posterior
vagal trunk

Anterior
vagal trunk

Right greater
splanchnic n.

Hepatic plexus

Anterior
vagal trunk,
pyloric branch

Aorticorenal
ganglion

Superior mesen-
teric ganglion

Testicular
(ovarian) plexus

Right colic a.
(with autonomic
plexus)

Ileocolic a.
(with autonomic
plexus)

Posterior vagal
trunk, celiac
branch

Left greater
splanchnic n.

Celiac ganglia

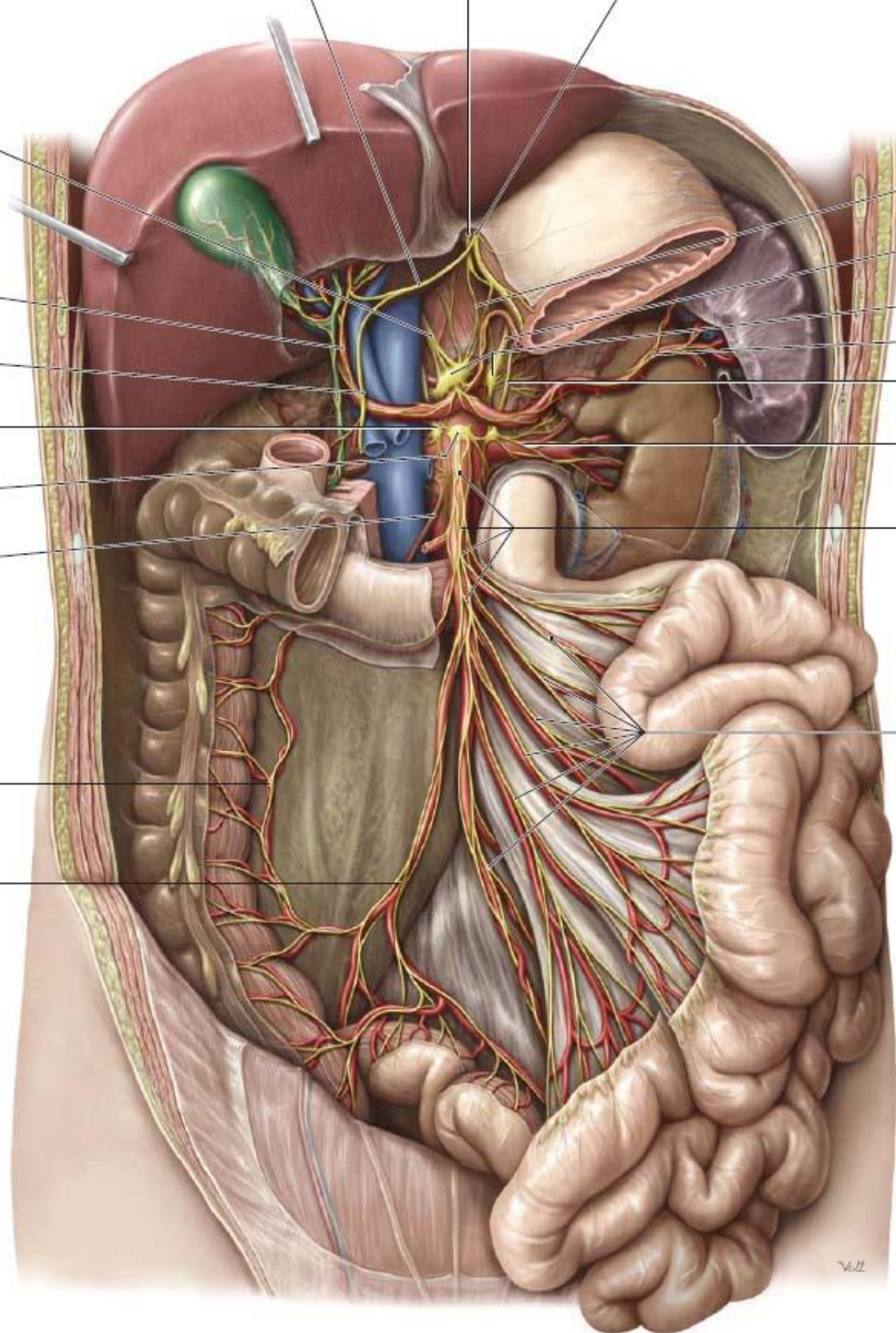
Splenic plexus

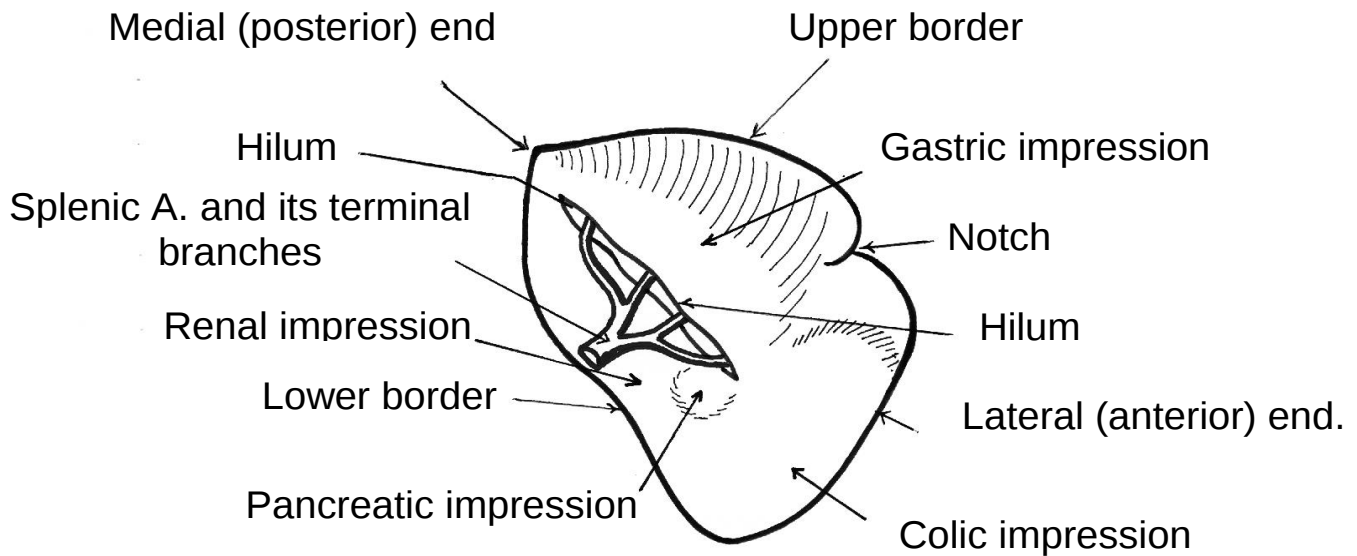
Left lesser
splanchnic n.

Renal plexus

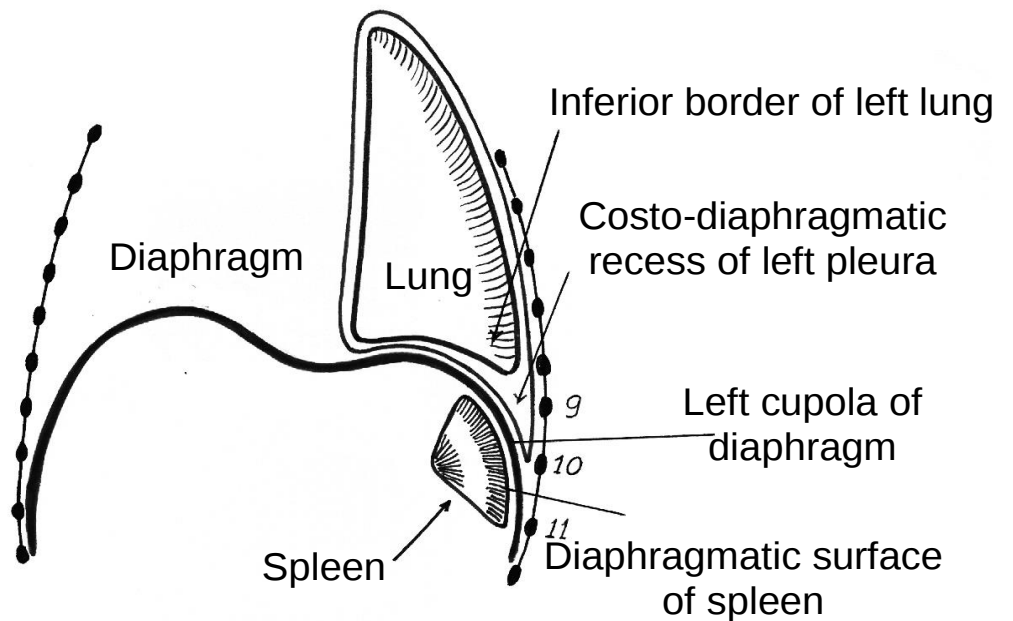
Superior
mesenteric
plexus

Jejunal and ileal aa.
(with autonomic
plexuses)



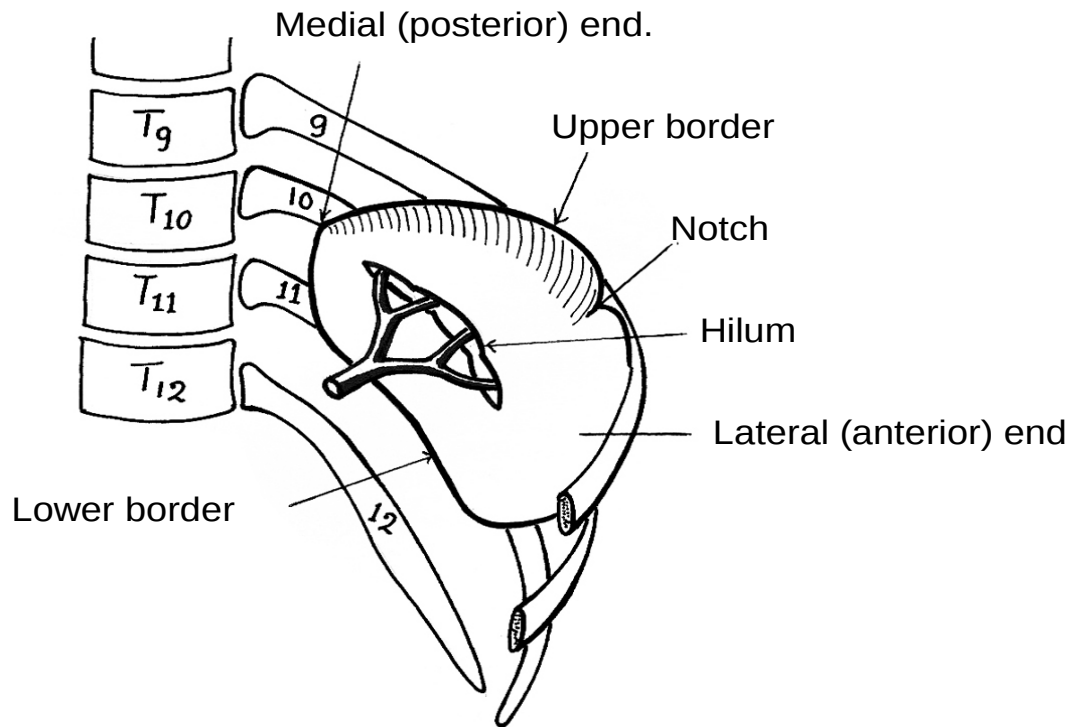


Spleen (visceral surface)

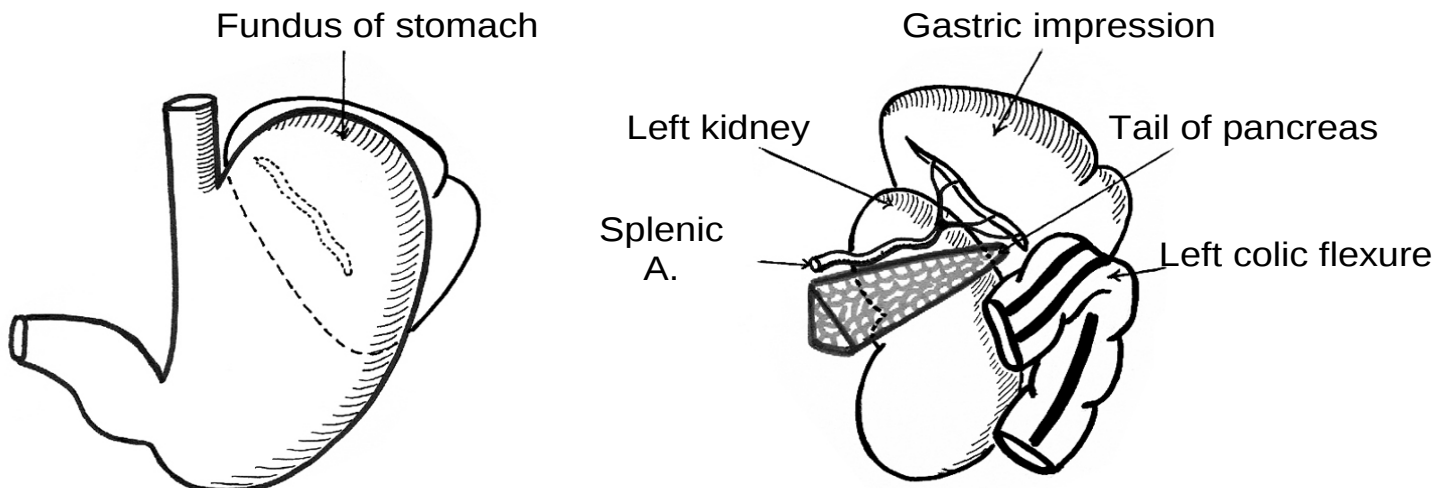


*** Diaphragmatic surface of the spleen ***
(Coronal section)

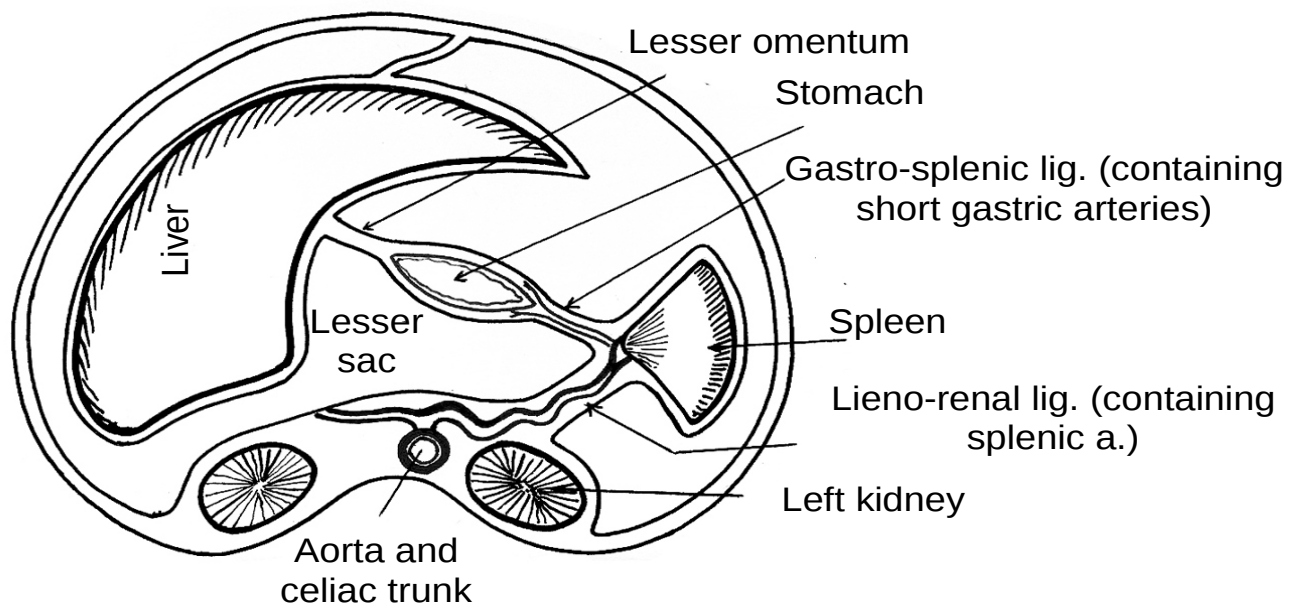
Site of the spleen



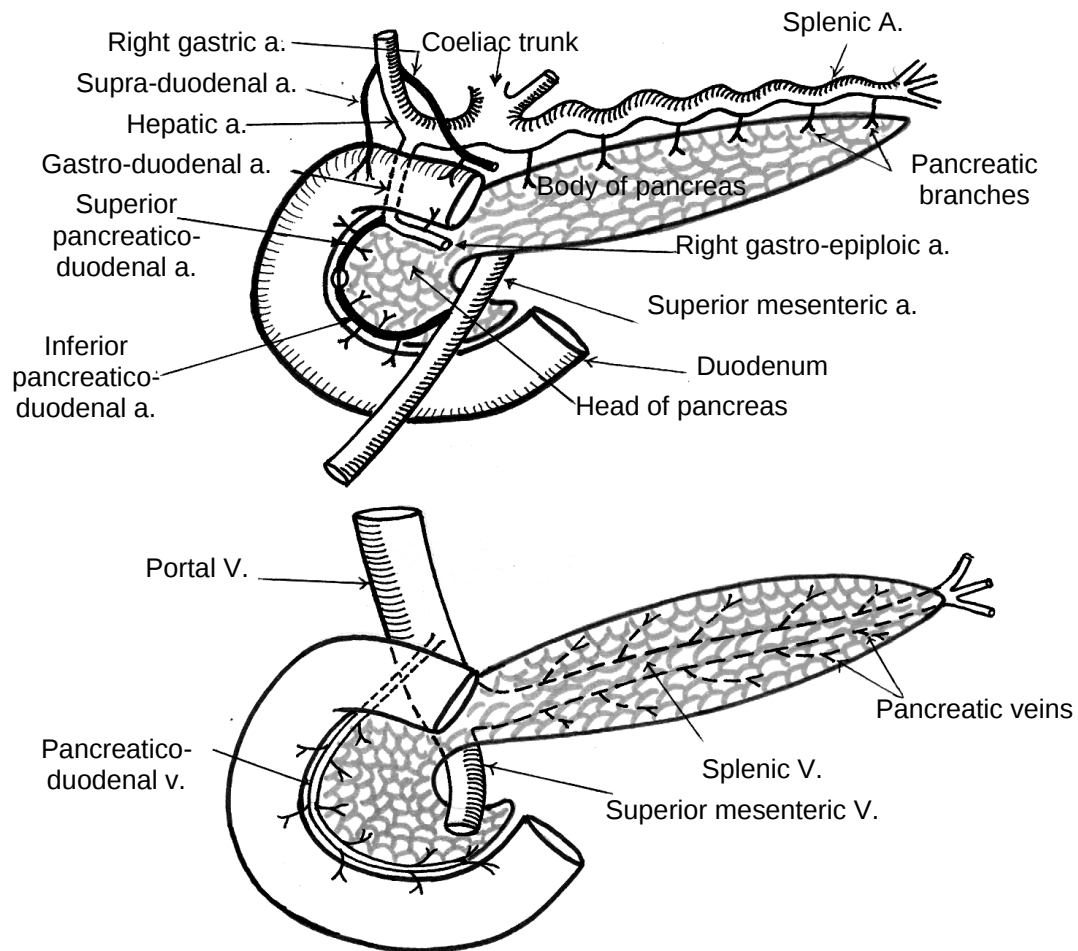
* Relations of visceral surface of spleen *



* Transverse section showing ligaments of the spleen *



Blood supply of pancreas and duodenum:



★ Applied Anatomy:

- (1) In the living, the spleen is soft and friable and therefore it is the **commonest solid abdominal organ** to be injured and its tear is very difficult to be repaired.
- (2) In the living adult, normal spleen (or even enlargement less than 2-3 times) **can not be felt** but its position can be determined only by percussion or investigation (as ultrasound or CT scan).
- (3) If the spleen is enlarged **2-3 times**, it can be felt as a swelling below the left costal margin in the left hypochondrium.
- (4) **Splenic swelling** is characterized by its anatomical site, the presence of notch or notches on its superior border and moves up & down with respiration.

- (5) Splenic swelling usually **enlarges towards** the right iliac fossa due to the direction of the long axis of the spleen and the presence of phreno-colic ligament.
- (6) Splenic swelling is **the commonest** swelling in the left hypochondrium.
- (7) Each terminal branch of splenic artery supplies a specific segment of the spleen which allow partial splenectomy operation.
- (8) **Pain** due to splenic diseases is felt in the left hypochondrium.