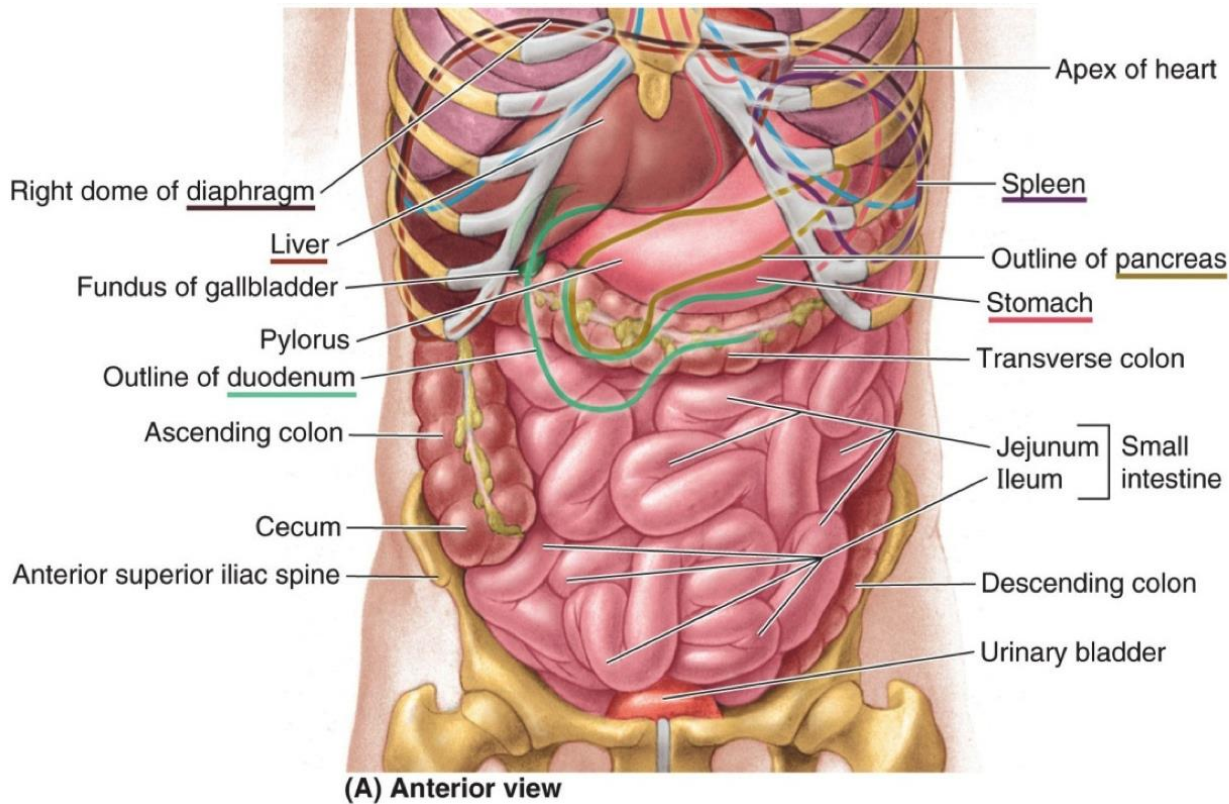


SPLEEN

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

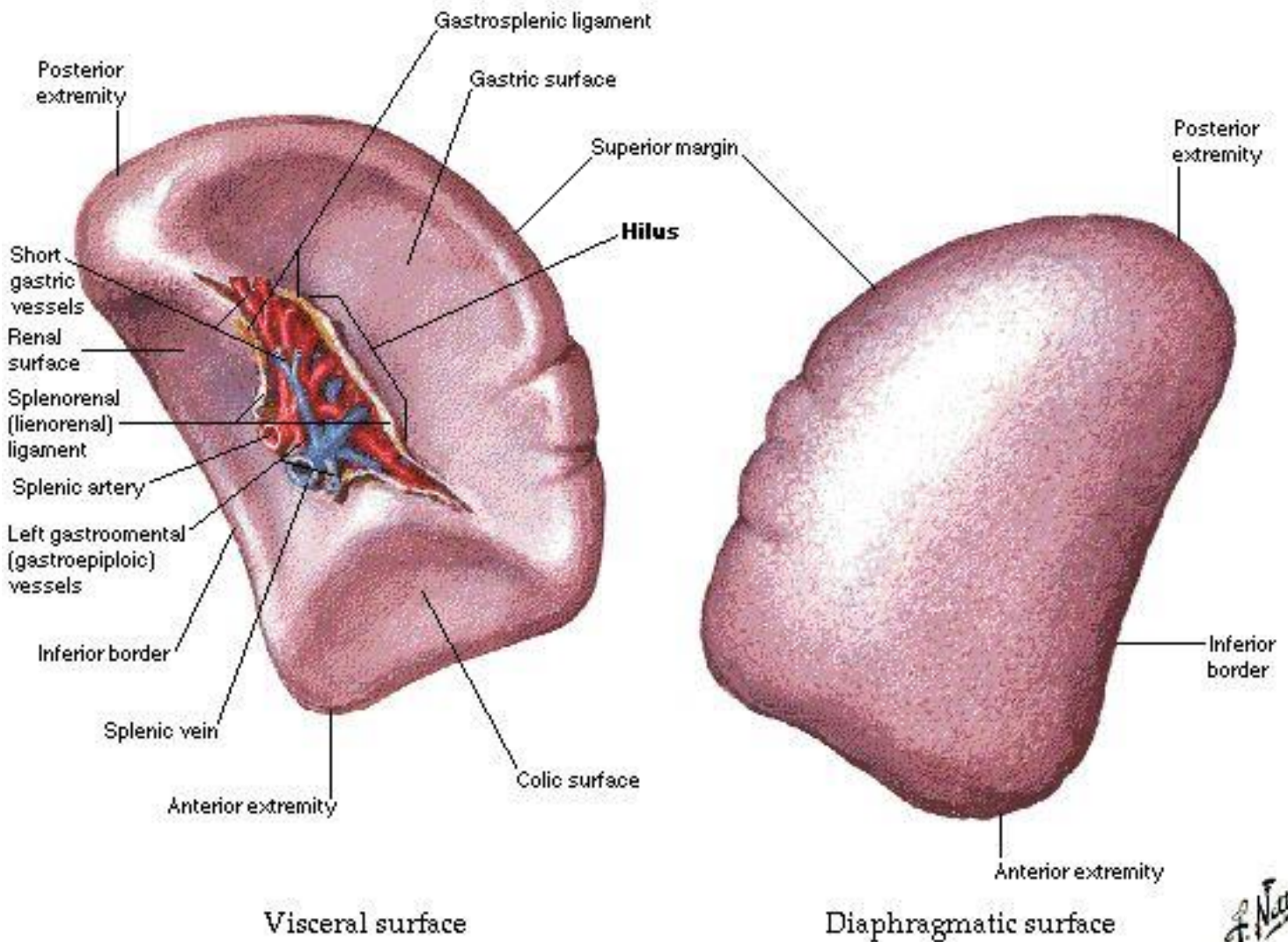


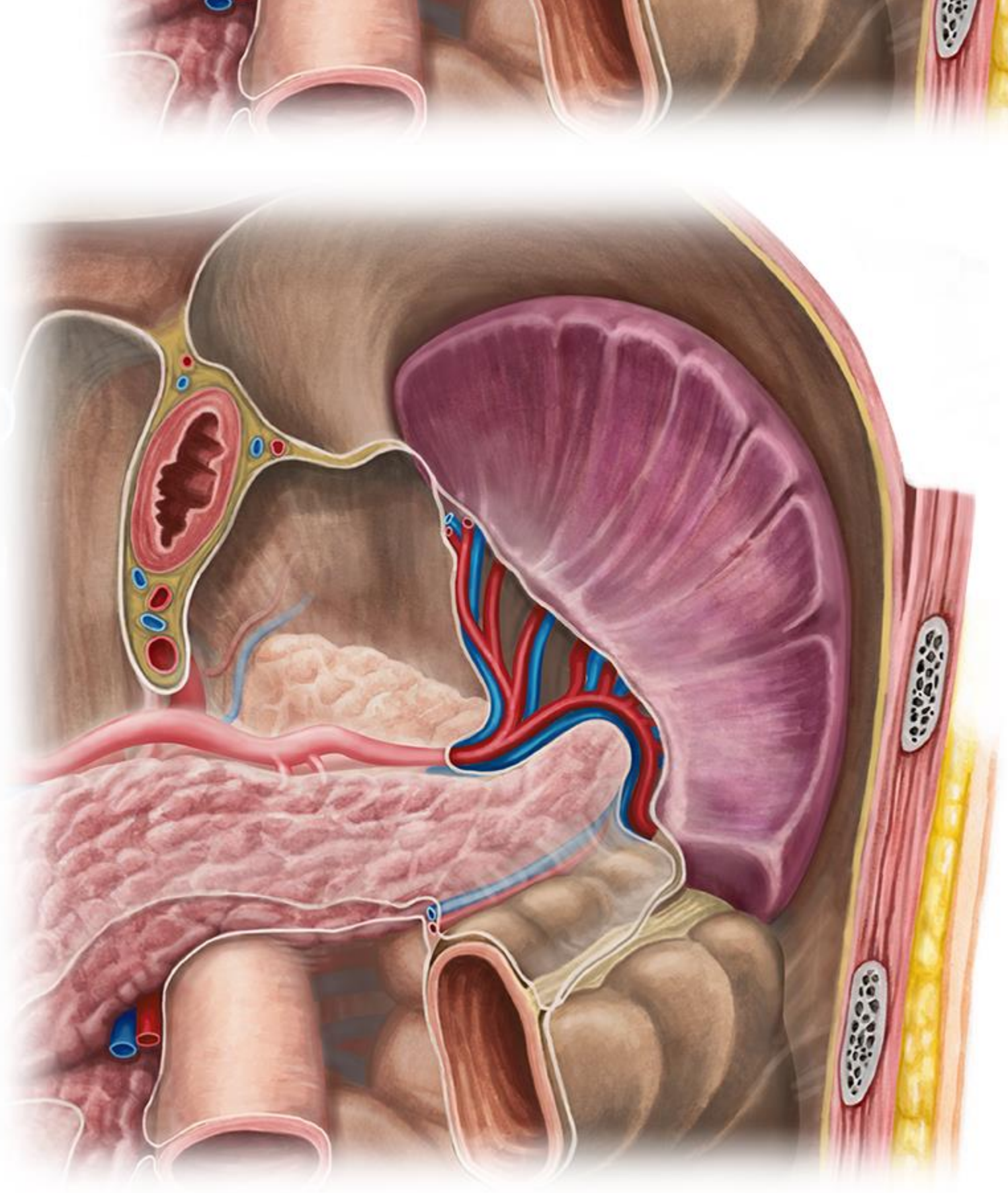
- * **Shape:** It has 2 borders, 2 ends, 2 surfaces:
 1. **Diaphragmatic surface:** Related to diaphragm which separates it from lower part of left pleura, left lung , ribs & intercostal muscles.
 2. **Visceral surface :** Presents the hilum & 4 impressions:
 - a. **Colic impression:** anterior to the 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.

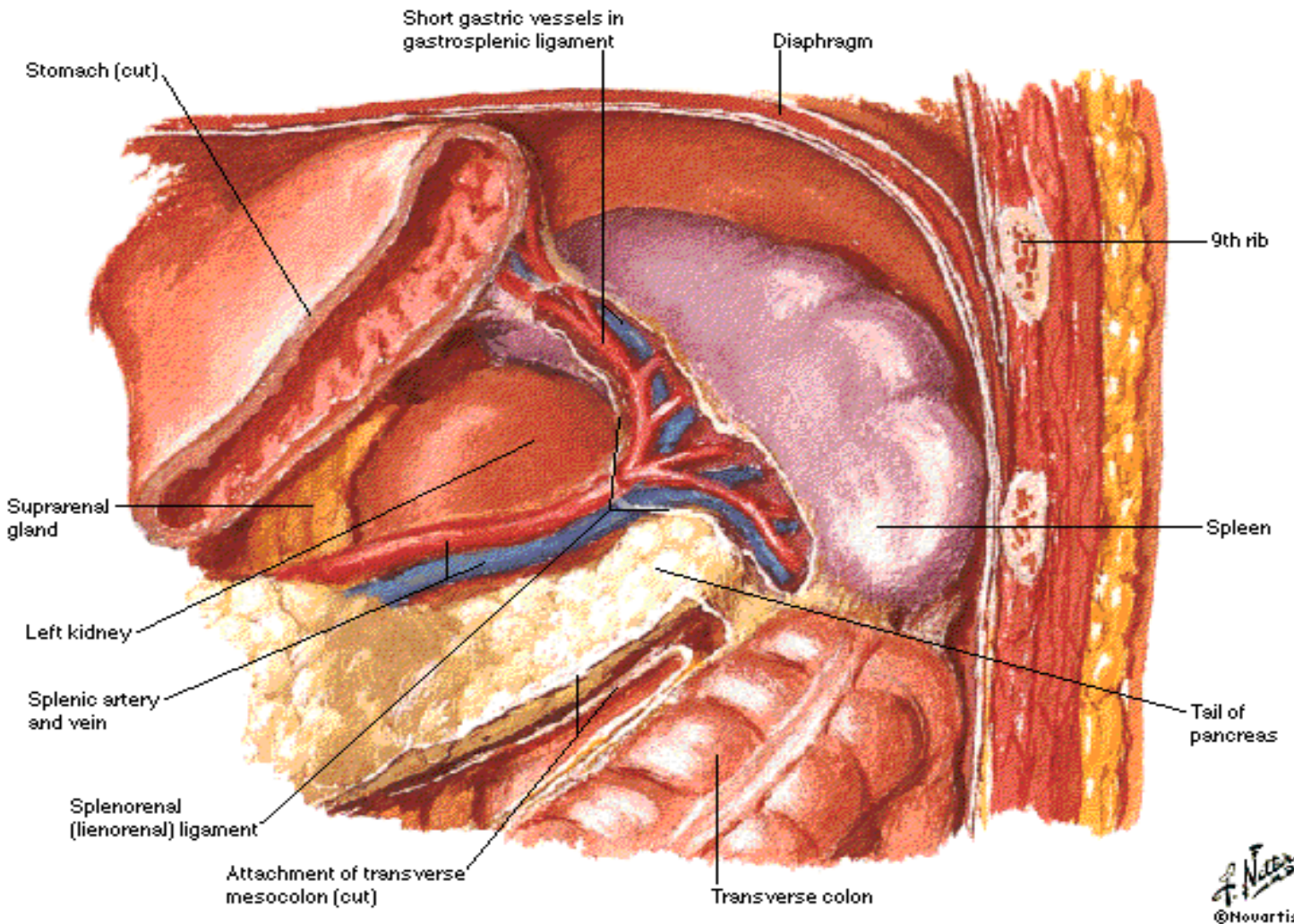
Spleen

Visceral and Diaphragmatic Surfaces



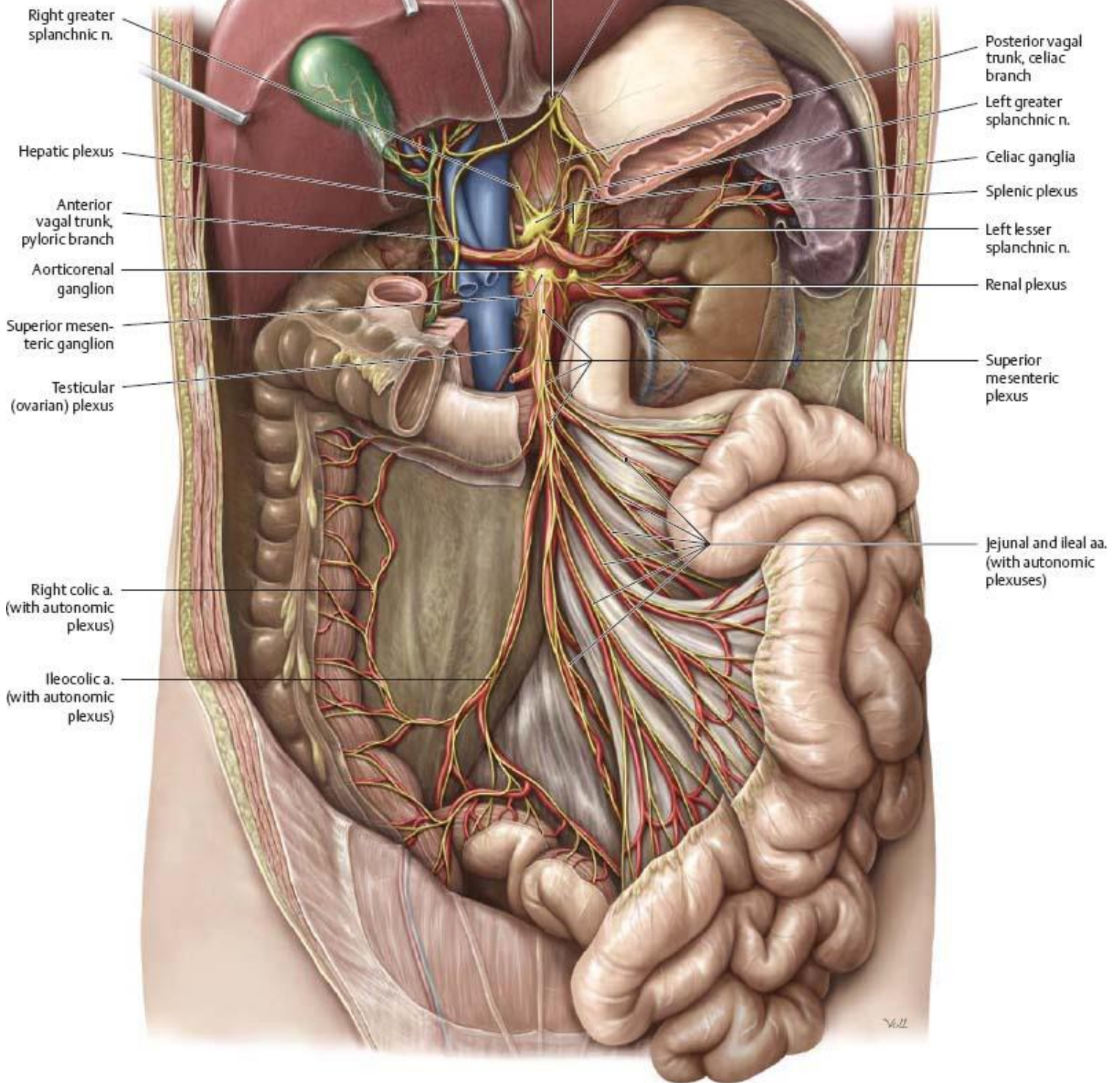


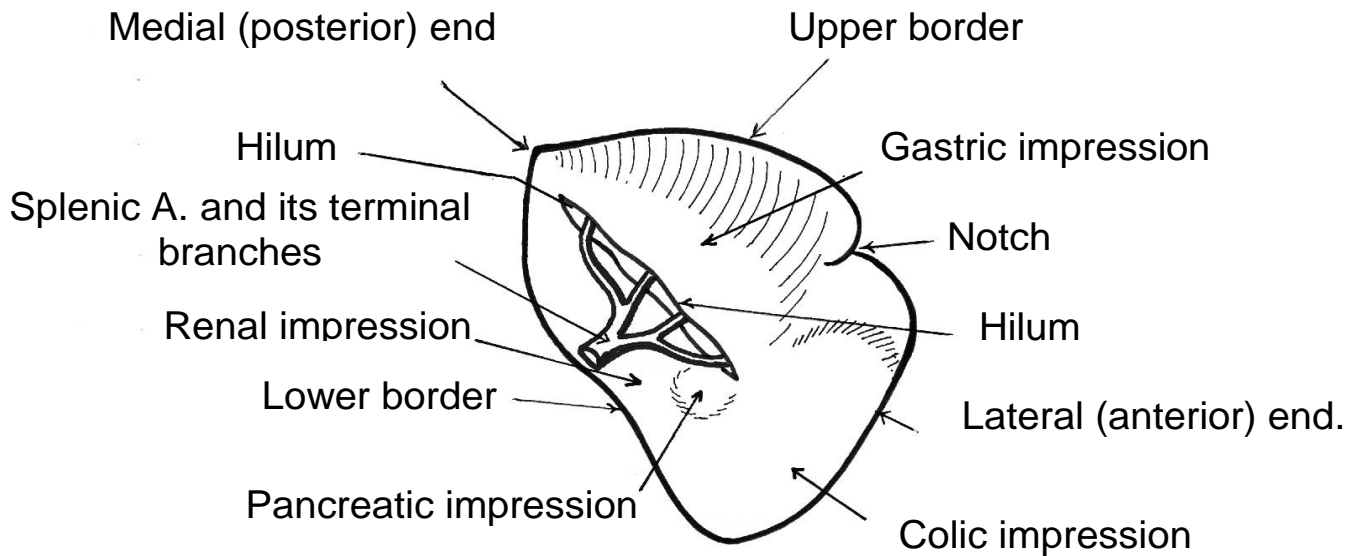
Spleen in Situ



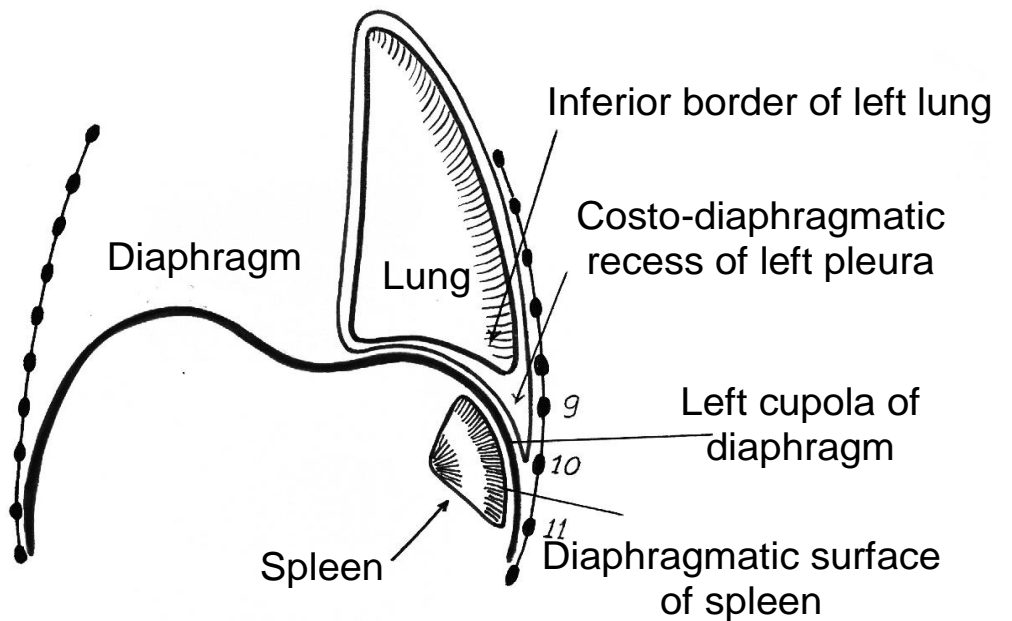
- * **Surface anatomy:** It lies opposite left 9, 10, 11 ribs, its medial end lies 1.5 inch from midline posterior & its lateral end in the left mid-axillary line.
- * **Blood supply:** Splenic artery (arises from the coeliac trunk, tortuous, runs on the upper border of pancreas) & splenic vein (runs 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



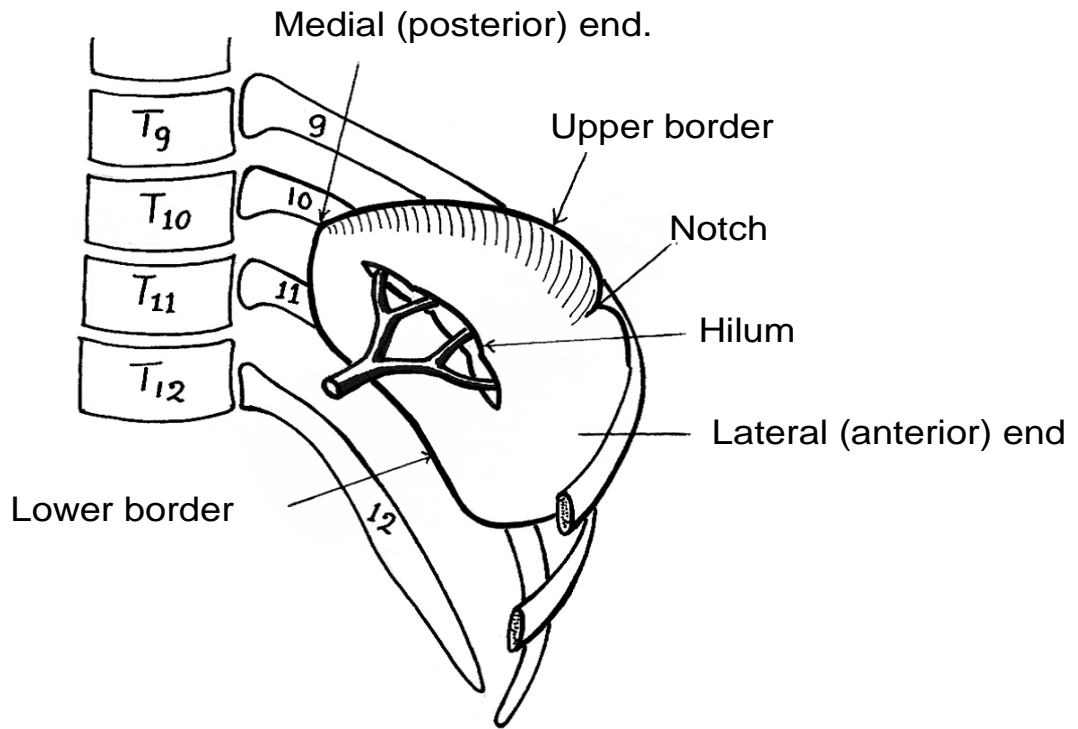


Spleen (visceral surface)

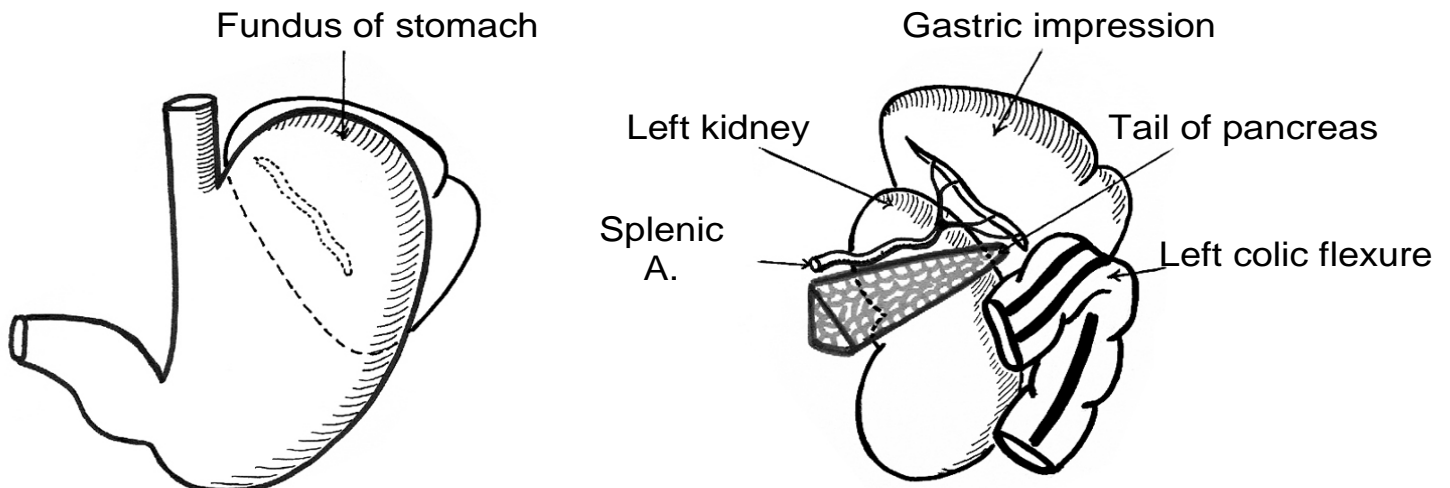


*** Diaphragmatic surface of the spleen *
(Coronal section)**

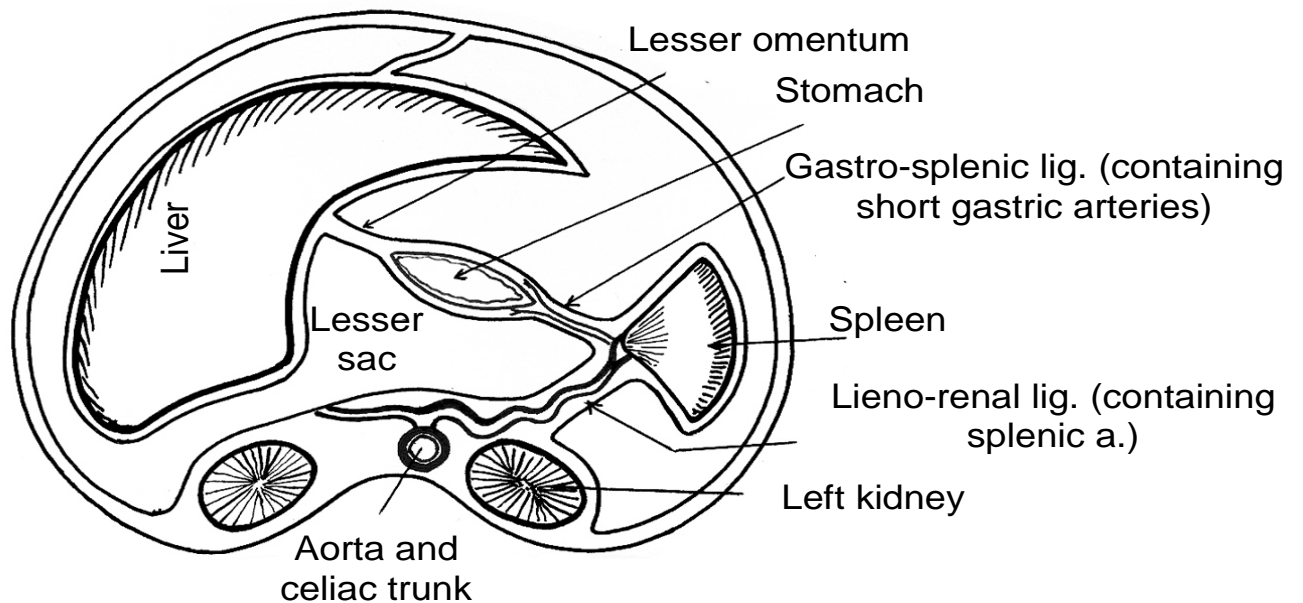
Site of the spleen



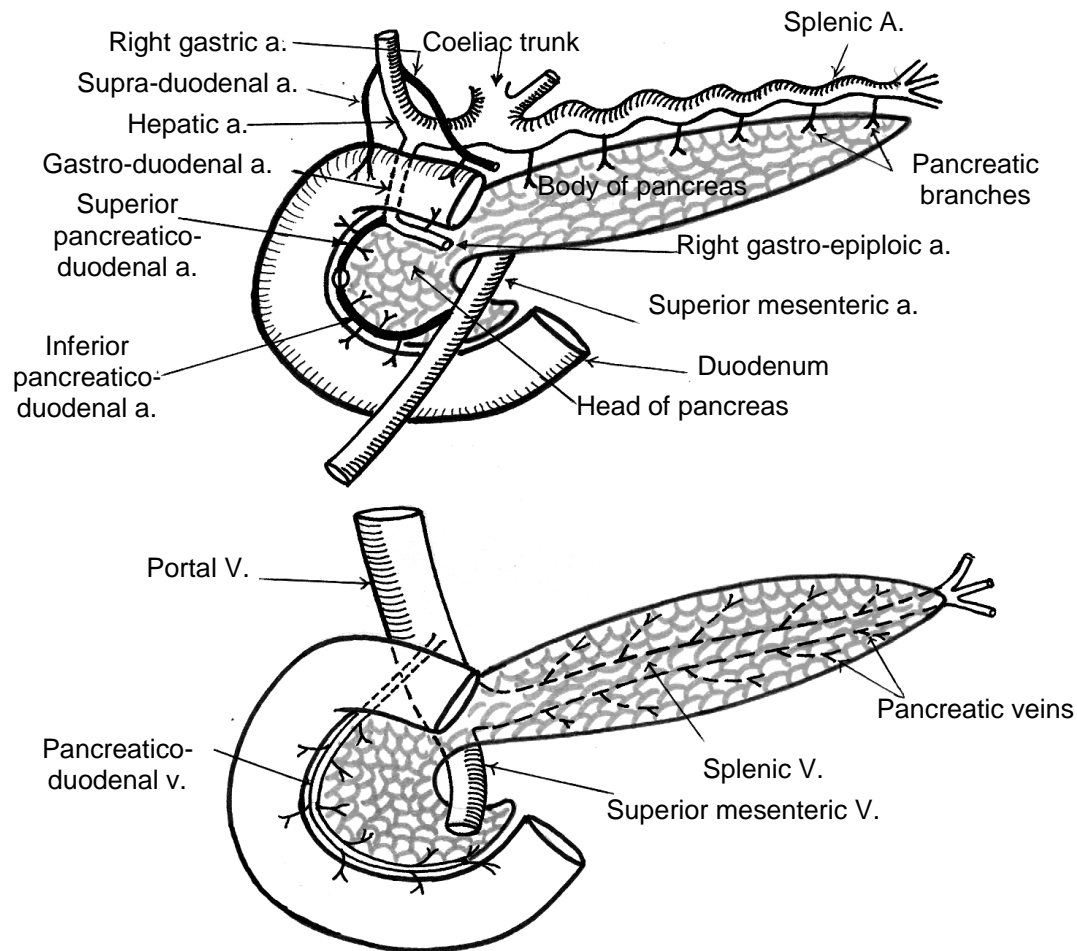
* Relations of visceral surface of spleen *



* 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 hypochonrium.