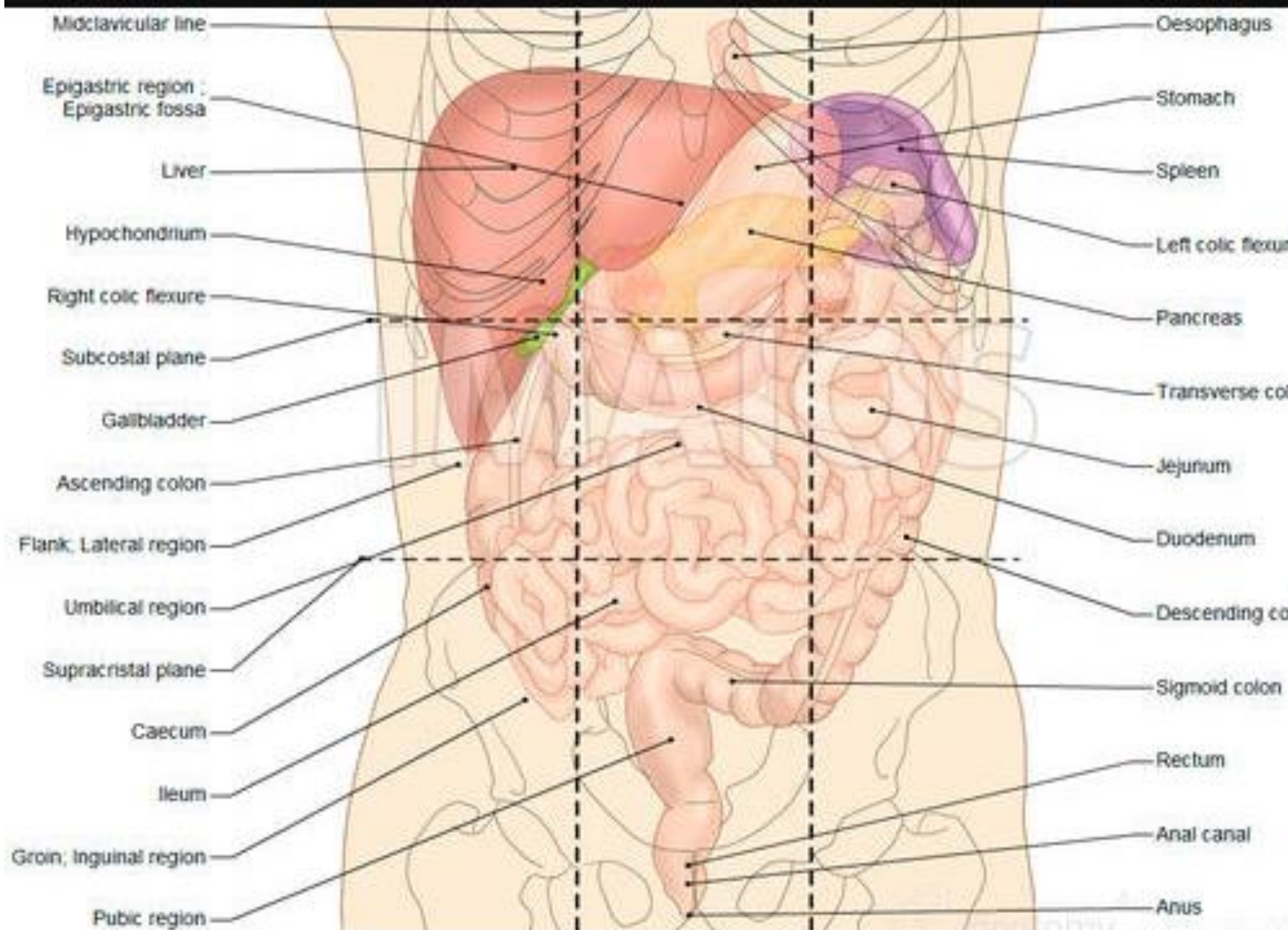


**SPLEEN**

## **LOCATION AND SHAPE-**

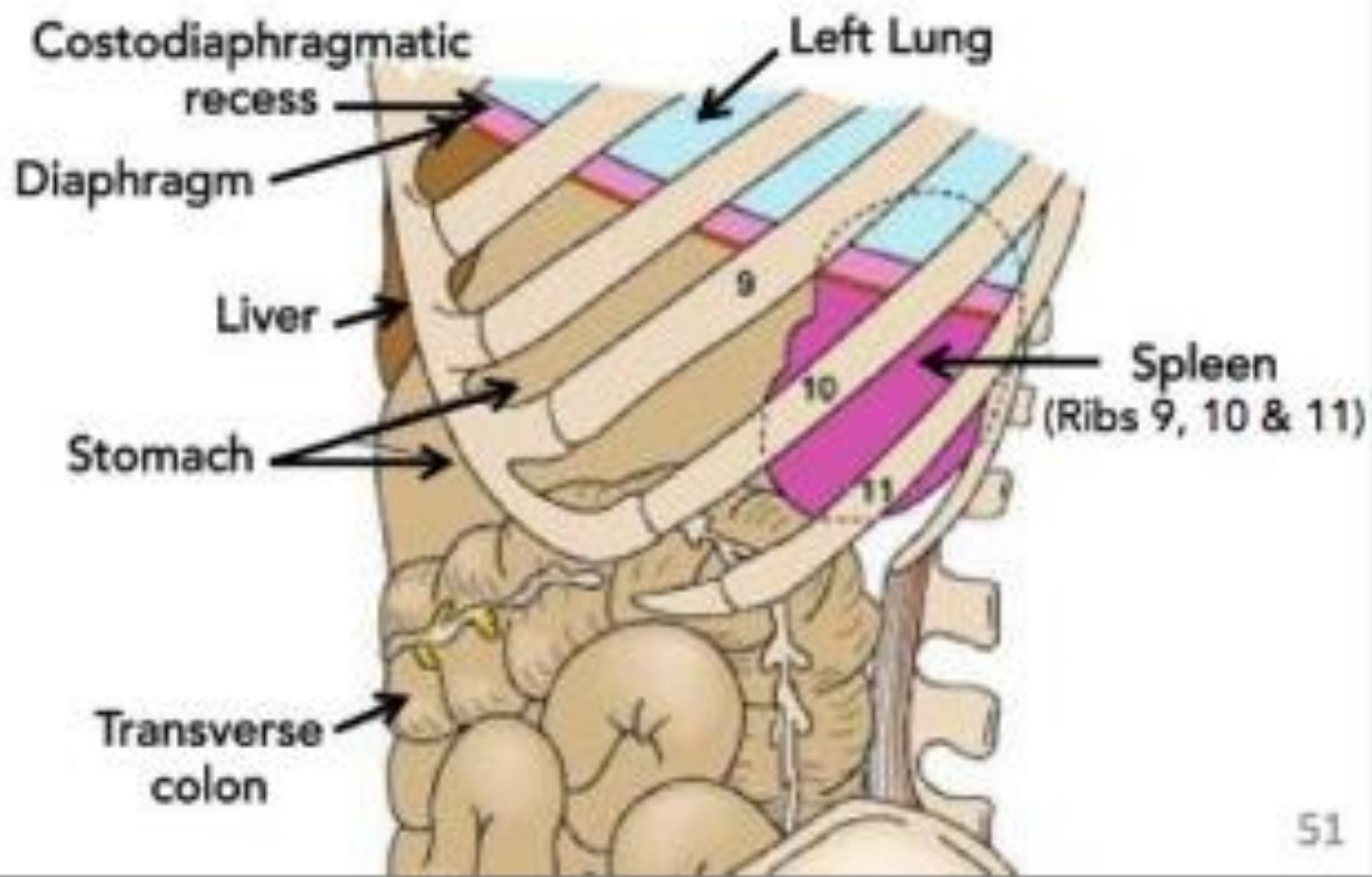
- **wedge-shaped organ lying mainly in the left hypochondrium, and partly in the epigastrium.**
- **In the adult, the spleen functions mainly as a blood filter, removing old red blood cells.**
- **The spleen, a mobile ovoid lymphatic organ, lies intraperitoneally in the left upper quadrant. The spleen is entirely surrounded by peritoneum except at the hilum, where the splenic branches of the splenic artery and vein enter and leave.**



- The spleen is soft, highly vascular and dark purple in colour.
- On an average the spleen is **1 inch** or 2.5 cm thick, **3 inches** or 7.5 cm broad, **5 inches** or 12.5 cm long, **7 ounces** in weight, and is related to **9th to 11th** ribs.

## **Position (Axis of Spleen)**

- **The spleen lies obliquely along the long axis of the 10th rib. Thus it is directed downwards, forwards and laterally, making an angle of about 45 degrees with the horizontal plane .**



## **External Features**

- **Ends-2**
- **Borders-3**
- **Surfaces-2**

### **Two Ends-**

1. **Anterior end-** is expanded and is more like a border. It is directed downwards and forwards, and reaches the midaxillary line.
2. **Posterior end-** is rounded. It is directed upwards, backwards and medially, and rests on the upper pole of the left kidney

## **Three Borders-**

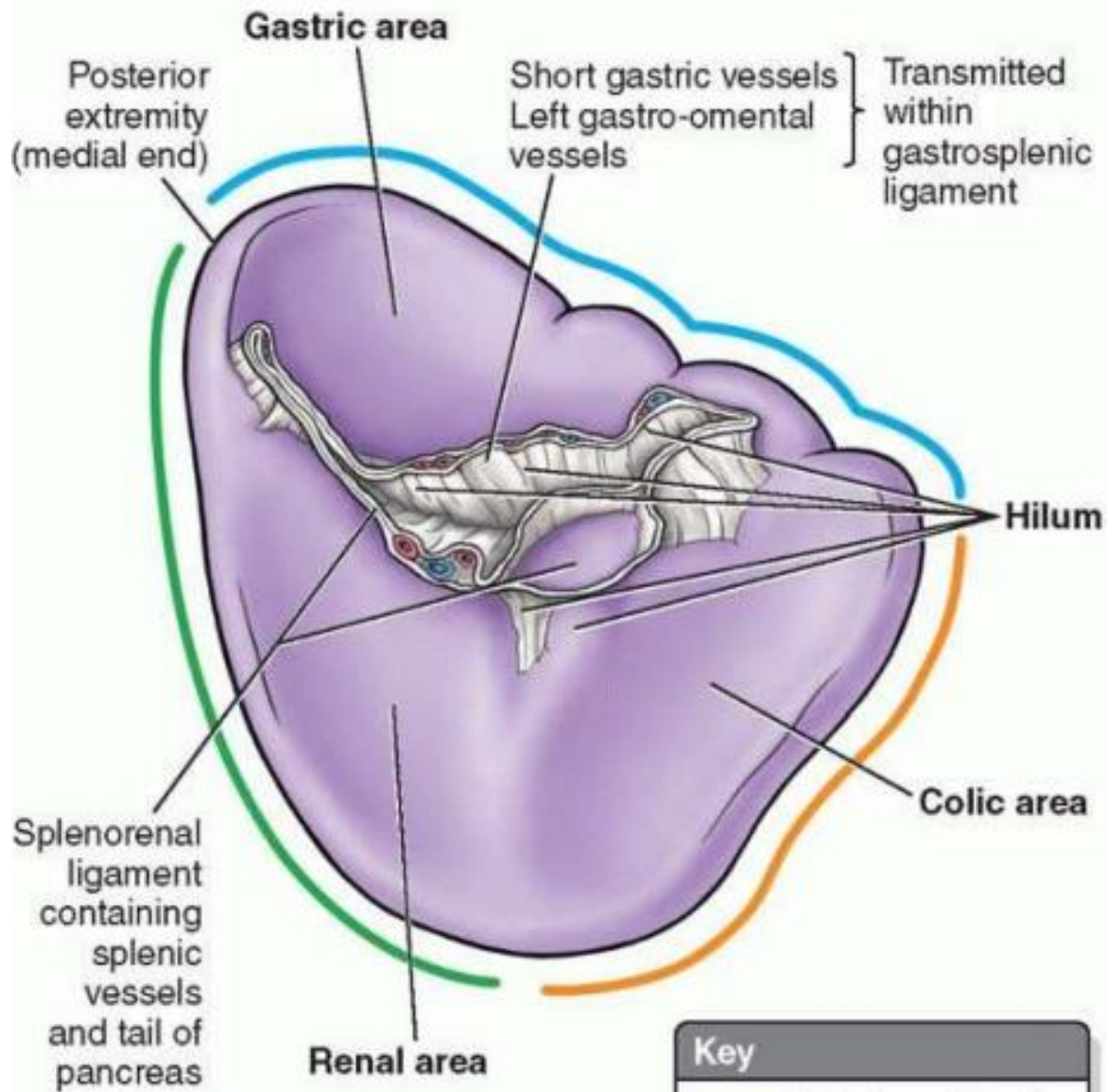
- 1. Superior border- is characteristically notched near the anterior end.**
- 2. Inferior border- is rounded.**
- 3. Intermediate border- is also rounded and is directed to the right.**



- **Two Surfaces**

- 1. Diaphragmatic surface- is convex and smooth.**
- 2. Visceral surface- is concave and irregular. It bears the following impressions.**
  - **Gastric impression, for the fundus of the stomach, lies between the superior and intermediate borders. largest impression.**
  - **Renal impression, for the left kidney, lies between the inferior and intermediate borders.**
  - **Colic impressions, for the splenic flexure of the colon.**

- **pancreatic impression, for the tail of the pancreas, lies between the hilum and the colic impression.**
- **Hilum-**  
**lies on the inferomedial part of the gastric impression along the long axis of the spleen. It transmits the splenic vessels and nerves, and provides attachment to the gastrosplenic and lienorenal ligaments.**

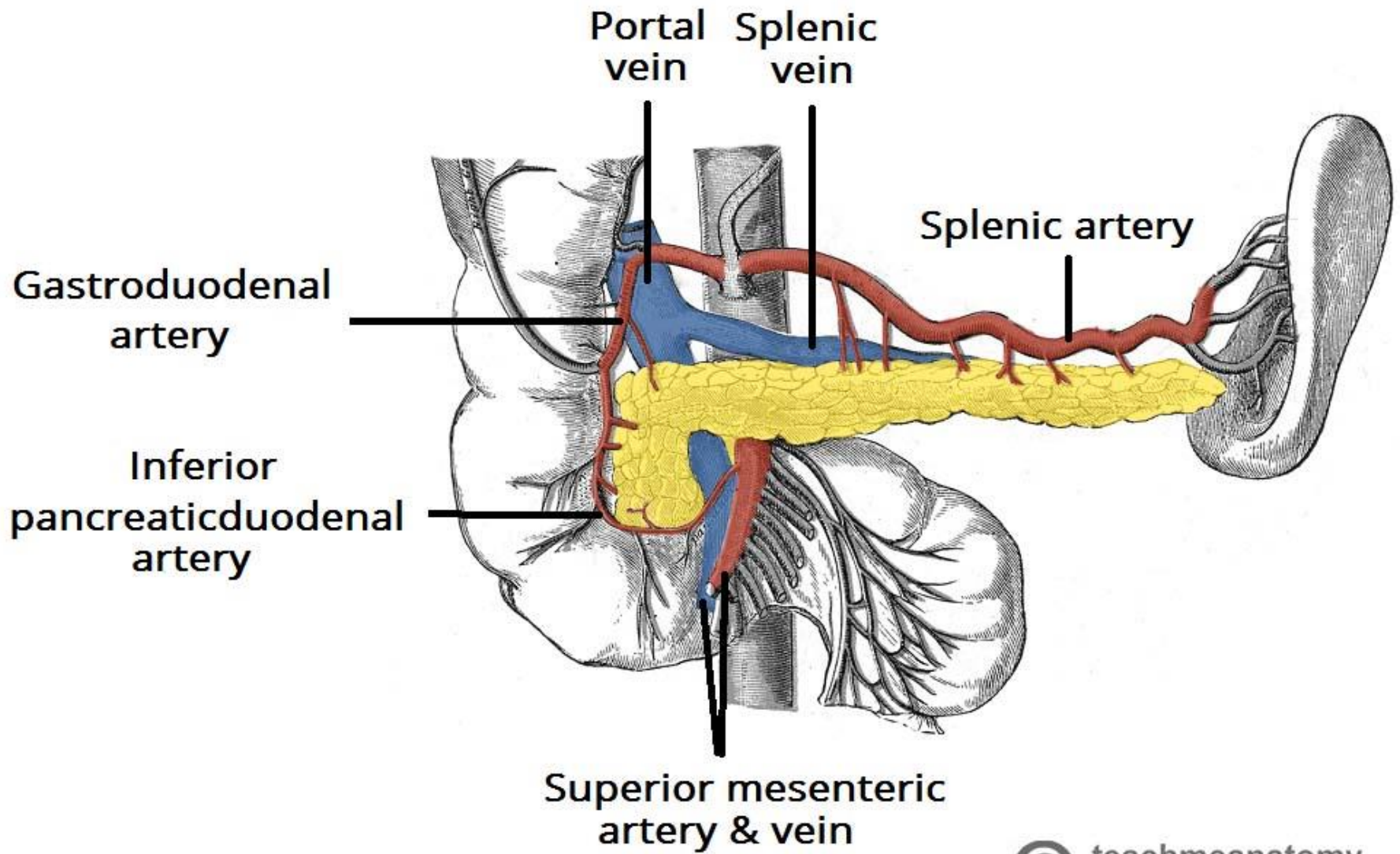


**Inferomedial view**

**Key**

- Anterior extremity
- Inferior border
- Superior border

- **Arterial Supply- splenic artery**
- **Venous Drainage- splenic vein**
- **Nerve Supply- coeliac plexus.**
- **Lymphatic Drainage- pancreaticosplenic lymph nodes**

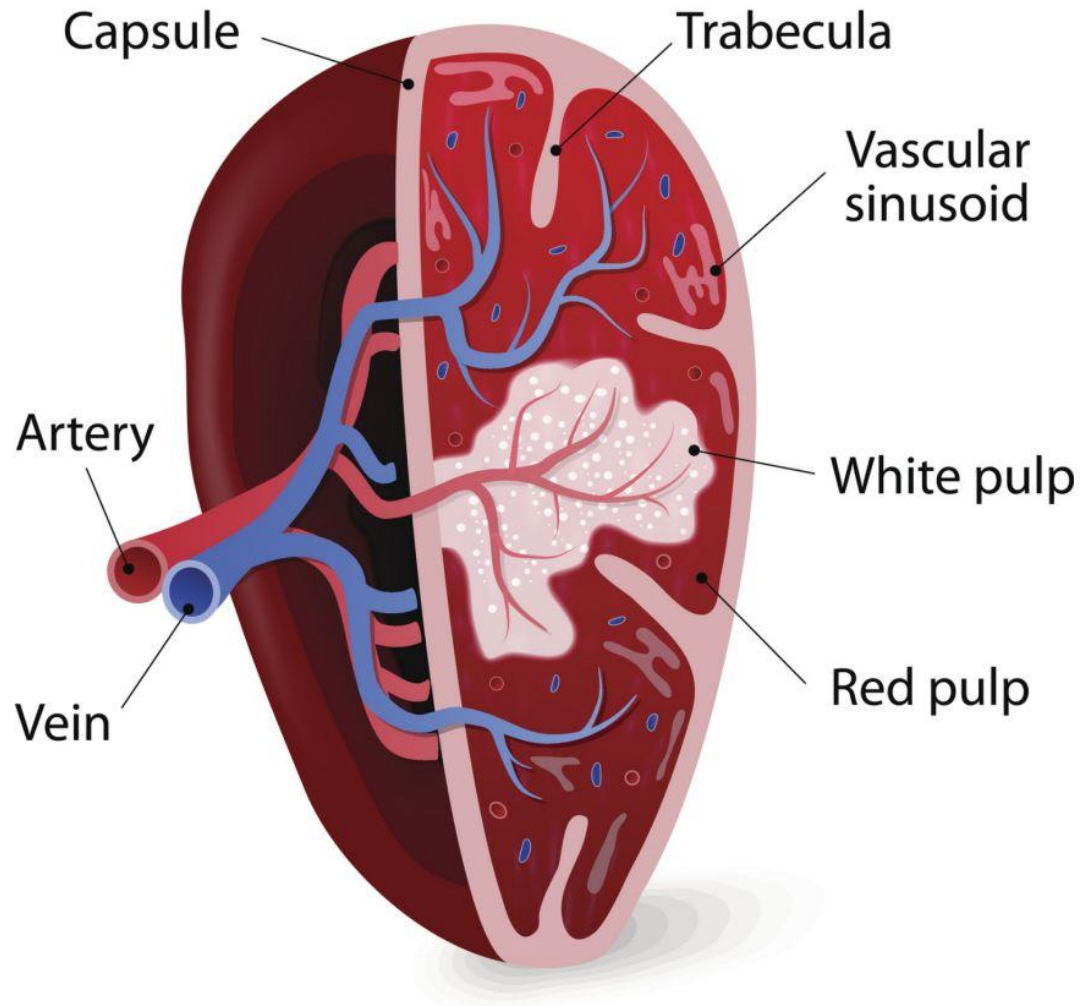


# **HISTOLOGY**

**spleen is made up of four component parts-**

- 1. Supporting tissue- fibroelastic forming the capsule, coarse trabeculae and a fine reticulum.**
- 2. White pulp- consisting of lymphatic nodules arranged around an eccentric arteriole called Malpighian corpuscle.**
- 3. Red pulp- is formed by the collection of cells in the interstices of reticulum, in between the sinusoids. The cell population includes (a) all types of lymphocytes (b) all three types of blood cells and (c) macrophages.**
- 4. Vascular system traverses the organ and permeates it thoroughly**

# SPLEEN ANATOMY



# Surface Marking

- (a) It is marked on the left side of the back, with its long axis corresponding with that of the 10th rib.**
- (b) The upper border corresponds to the upper border of the 9th rib, and the lower border to the lower border of the 11th rib.**
- (c) The posterior end lies 4 to 5 cm from the midline; and the anterior end at the midaxillary line.**