

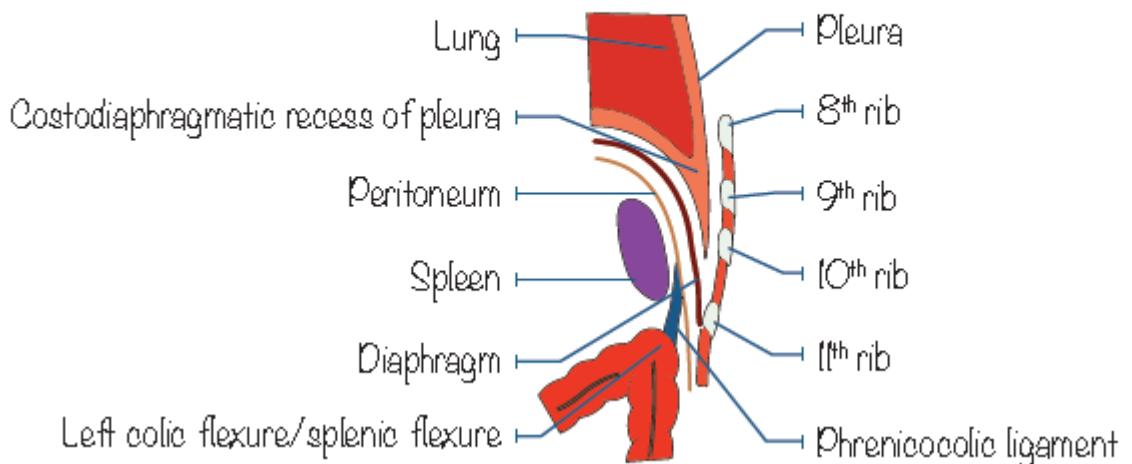
# Spleen

Haemo lymph organ

## Situation

1. Upper and left abdomen
2. Between stomach fundus and diaphragm
3. Lateral 2/3rd- Left hypochondrium, Medial 1/3rd- Epigastrium
4. Anterior to 9th, 10th and 11th ribs

## Longitudinal section through the midaxillary line to show the relation of the diaphragmatic surface of the spleen



## Axis

1. Oblique
2. Along left 10th rib

## Measurements

1. Size ↓ in starvation, old age, severe exercise, severe haemorrhage
2. Size ↑ in health

## Presenting Parts

Medial End
<ul style="list-style-type: none"><li>• Blunt</li><li>• Upwards, backwards</li><li>• 10th thoracic spine</li></ul>

Lateral End
<ul style="list-style-type: none"><li>• Left colic flexure (anteriorly)</li><li>• Phrenico colic ligament below</li></ul>

Diaphragmatic Surface
<ul style="list-style-type: none"><li>• Within outwards</li></ul>

- Greater sac of peritoneum
- Diaphragm
- Lower border of left lung, left pleural sac
- Costo diaphragmatic recess
- Left 9th, 10th, 11th ribs and intercostal spaces

#### Visceral Surface

- Gastric impression: Fundus separated by greater sac
- Renal impression: Upper anterior surface of left kidney and suprarenal gland separated by greater sac
- Colic impression: Left colic flexure
- Pancreatic impression: Tail of pancreas between lienorenal ligament

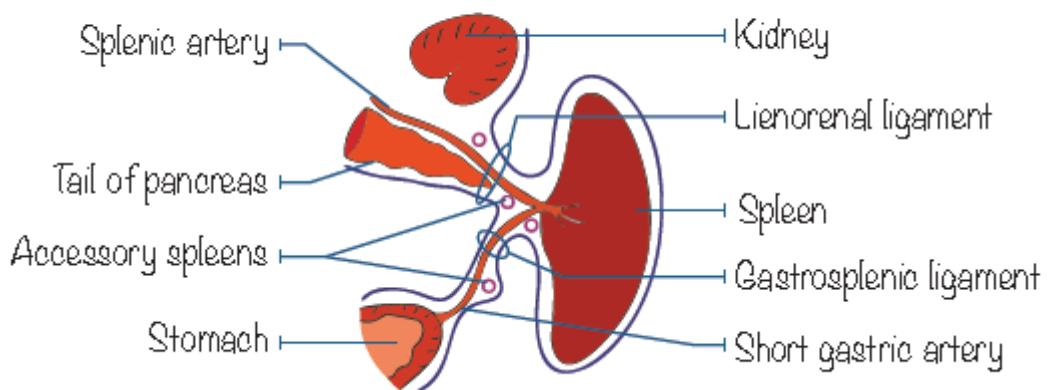
#### Superior Border

Notches- Lobulated in development

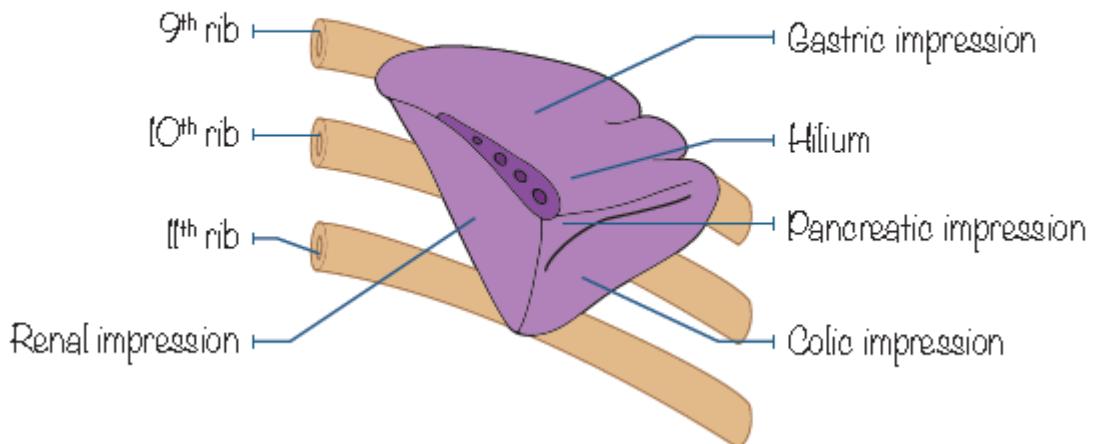
#### Inferior Border

Extends obliquely coinciding with left 11th rib

## Peritoneal relations of the spleen



## Visceral surface of the spleen showing different impressions



### *Anterior Basal Angle*

1. 9th intercostal space slightly behind the left mid axillary line
2. Once spleen enlarged, this angle is palpated (spleen is 2/3rd enlarged)
3. Clinical angle of spleen

### *Posterior Basal Angle*

### *Ligaments of Spleen*

1. Gastro splenic, lienorenal and lienophrenic ligaments
2. Phrenico colic ligament supports spleen- Sustentaculum lienis

### *Gastro Splenic Ligament*

1. 2 layers of peritoneal fold
2. Connect stomach fundus to anterior lip of hilum of spleen
3. Runs between greater curvature of stomach and hilum of spleen
4. Anterior layer from greater sac, posterior layer from lesser sac
5. Contains short gastric, left gastro epiploic vessels

### *Lienorenal Ligament*

1. 2 layers of peritoneal fold
2. Connects anterior surface of left kidney with posterior lip of hilum of spleen
3. Anterior layer is continuous medially with the peritoneum of posterior wall of lesser sac
4. Posterior layer is continuous with peritoneum over the inferior surface of the diaphragm
5. Contains splenic vessels, nerves, lymphatics
6. Also tail of pancreas

### *Lienophrenic Ligament*

1. Phrenico splenic
2. "Suspensory ligament of spleen"
3. Connects medial end of hilum with diaphragm

### *Phrenico Colic Ligament*

1. "Sustentaculum lienis"

2. Fan shaped fold of peritoneum extends from the anterior aspect of gastrosplenic ligament below inferior pole of spleen and blends with phrenico colic ligament

#### ***Arterial Supply***

1. Splenic branches of splenic artery
2. Tortuous course
3. Segmental branches on reaching hilum
4. Segmental branches → smaller branches running through trabecular septa
5. Arteries- Interlobular
6. Arterioles- Invested by lymphatic sheath (intralobular)
7. End arteries
8. White pulp- Small spherical or ovoid masses

#### ***Venous Drainage***

1. Venules run in the trabeculae → Converge at hilum as larger veins
2. Splenic vein pass along groove on posterior pancreas

#### ***Lymphatic Drainage***

1. Sub capsular and perivascular sets
2. Converge at hilum to pancreatico splenic lymph nodes

#### ***Nerve Supply***

1. Sympathetics from coeliac plexus
2. Supply blood vessels and smooth muscles

#### ***Notes***

Accessory spleen in 20% of population (MC location is Hilum of spleen)

Right isomerism is Asplenia

Left side isomerism is polysplenia

Downward displacement of spleen is prevented by phrenico colic ligament (Hensing's)