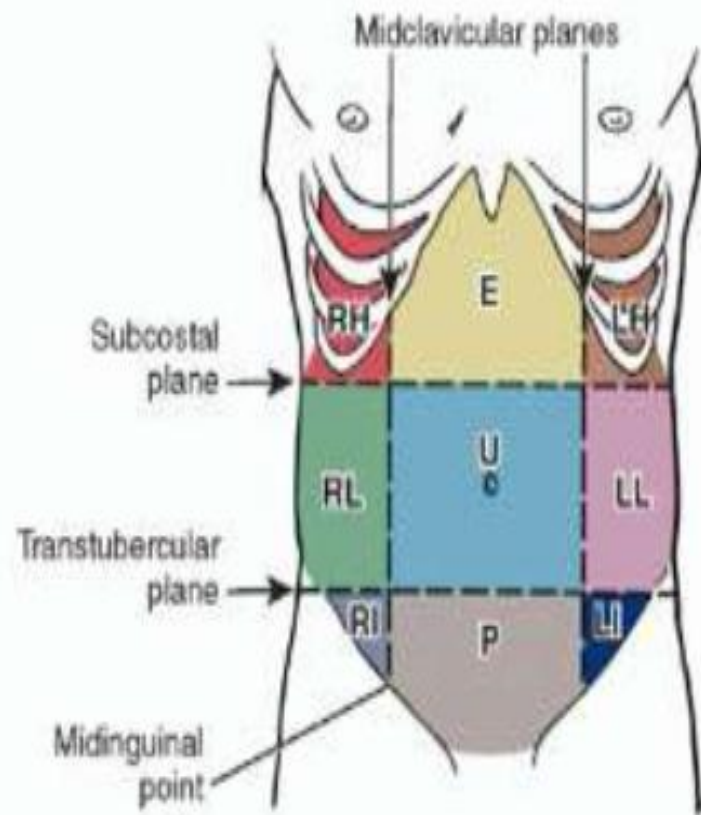


# **The Abdomen:**

## **Part II.**

# **The Abdominal Cavity**

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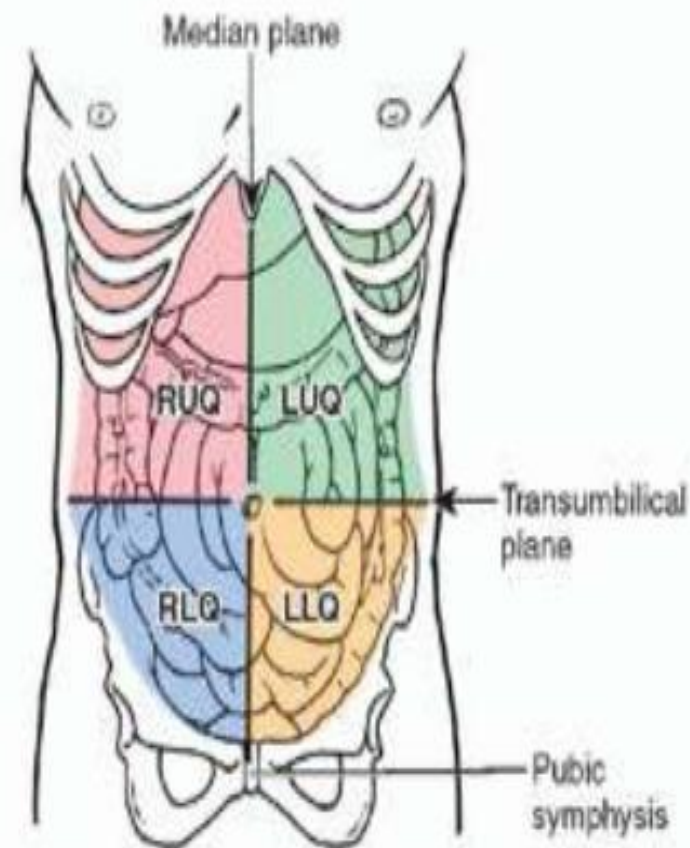


Anterior views

A Nine abdominal regions

**Key**

Right hypochondriac (RH)	Left lateral (lumbar) (LL)
Epigastric (E)	Right inguinal (groin) (RI)
Left hypochondriac (LH)	Pubic (hypogastric) (P)
Right lateral (lumbar) (RL)	Left inguinal (groin) (LI)
Umbilical (U)	



B Four abdominal quadrants

**Key**

Right upper quadrant (RUQ)
Left upper quadrant (LUQ)
Right lower quadrant (RLQ)
Left lower quadrant (LLQ)

# **The Abdomen:**

## **Part II. The Abdominal Cavity**

### **Liver**

The liver is a large organ that occupies the upper part of the abdominal cavity. It lies almost entirely under cover of the ribs and costal cartilages and extends across the epigastric region.

### **Gallbladder**

The gallbladder is a pear-shaped sac that is adherent to the undersurface of the right lobe of the liver; its blind end, or fundus, projects below the inferior border of the liver.

### **Esophagus**

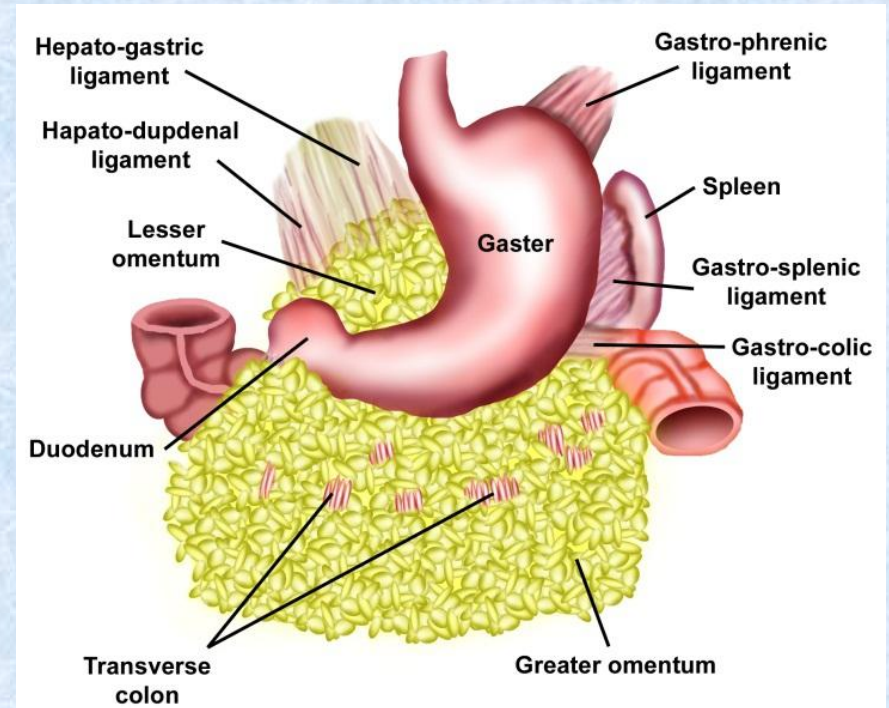
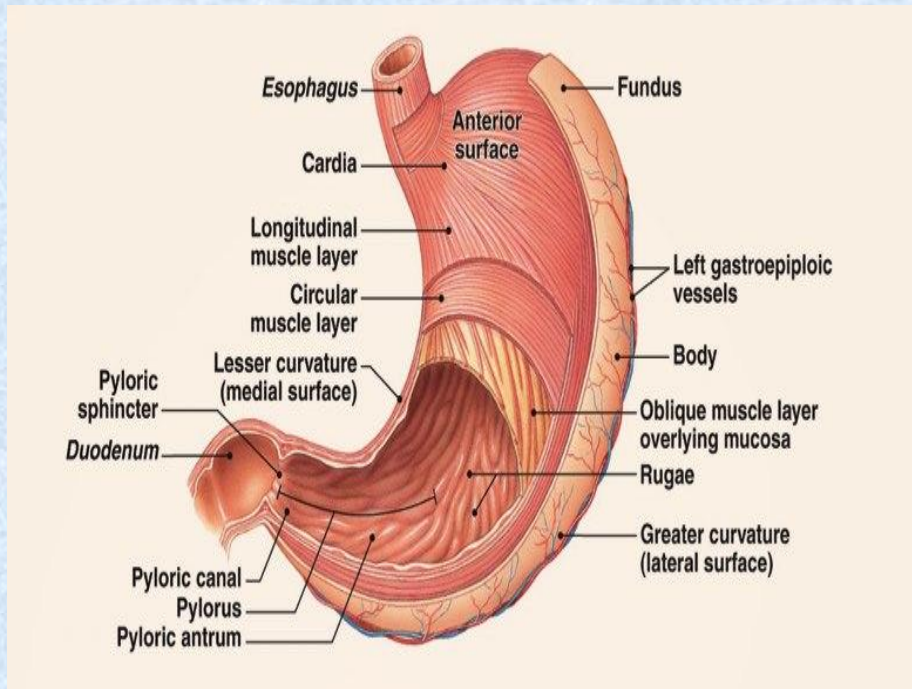
The esophagus is a tubular structure that joins the pharynx to the stomach. The esophagus pierces the diaphragm slightly to the left of the midline and after a short course of about 0.5 in. (1.25 cm) enters the stomach on its right side. It is deeply placed, lying behind the left lobe of the liver.



# Stomach

The stomach is a dilated part of the alimentary canal between the esophagus and the small intestine. It occupies the left upper quadrant, epigastric, and umbilical regions, and much of it lies under cover of the ribs. Its long axis passes downward and forward to the right and then backward and slightly upward.

The stomach is situated in the upper part of the abdomen, extending from beneath the left costal margin region into the epigastric and umbilical regions. Much of the stomach lies under cover of the lower ribs. It is roughly J-shaped and has two openings, the cardiac and pyloric orifices; two curvatures, the greater and lesser curvatures; and two surfaces, an anterior and a posterior.



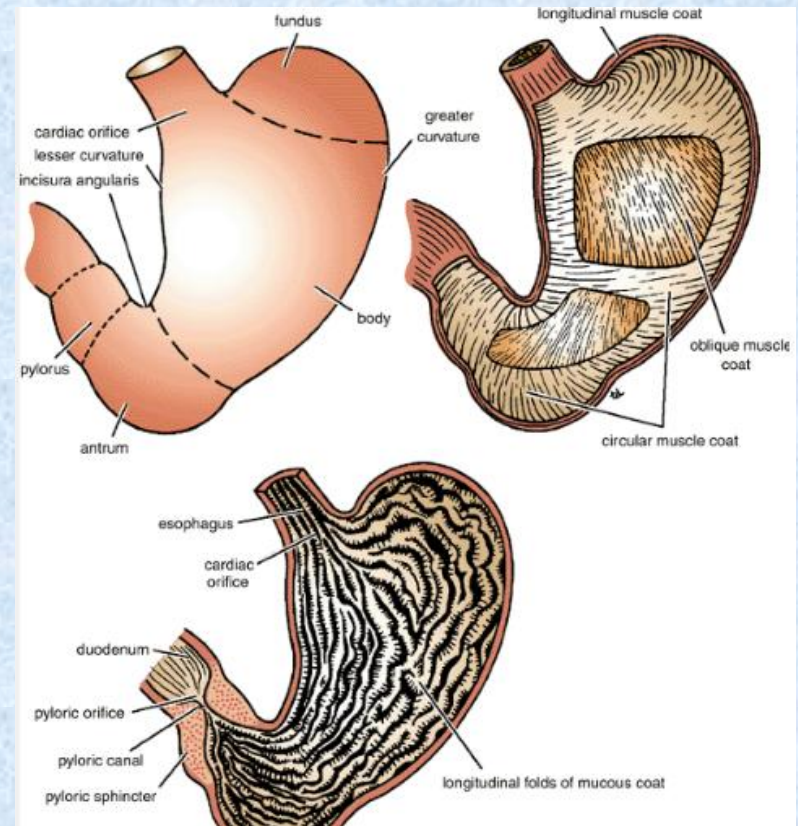
## The stomach is divided into the following parts

**Fundus:** This is dome-shaped and projects upward and to the left of the cardiac orifice. It is usually full of gas.

**Body:** This extends from the level of the cardiac orifice to the level of the incisura angularis, a constant notch in the lower part of the lesser curvature.

**Pyloric antrum:** This extends from the incisura angularis to the pylorus.

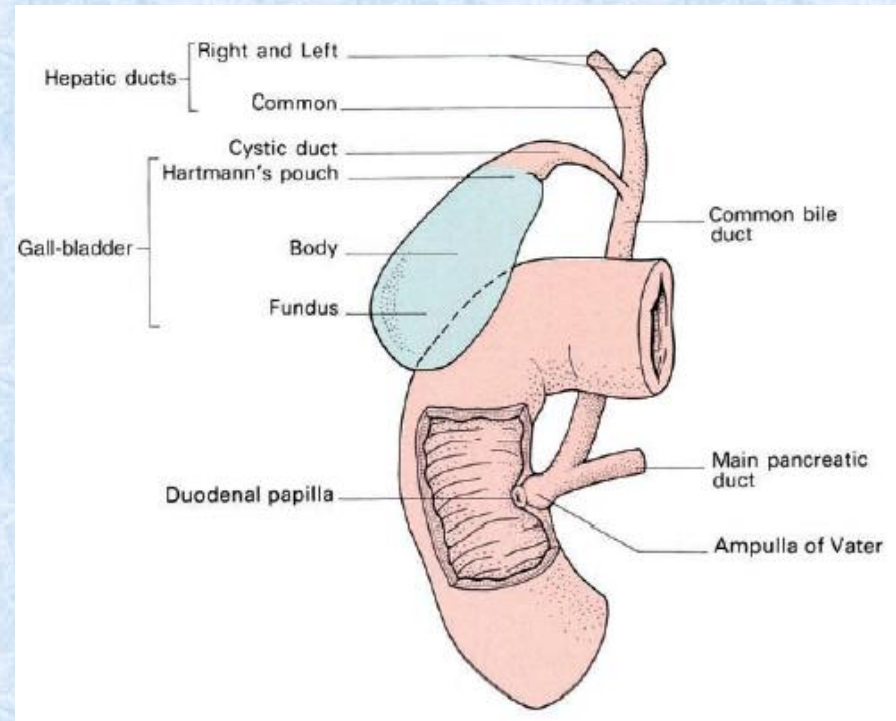
**Pylorus:** This is the most tubular part of the stomach. The thick muscular wall is called the pyloric sphincter, and the cavity of the pylorus is the pyloric canal.



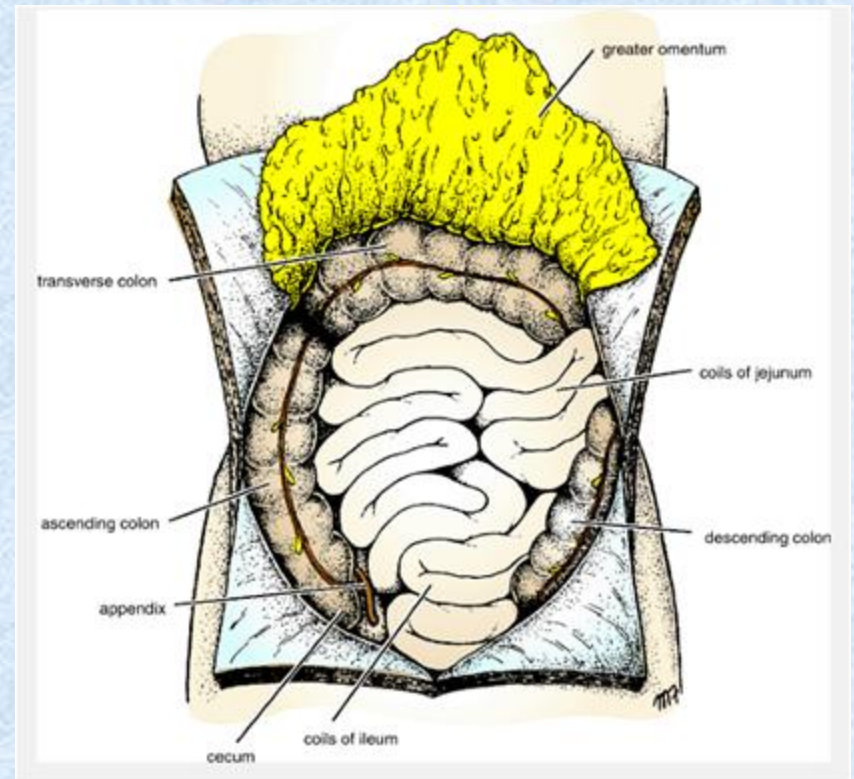


## Small Intestine

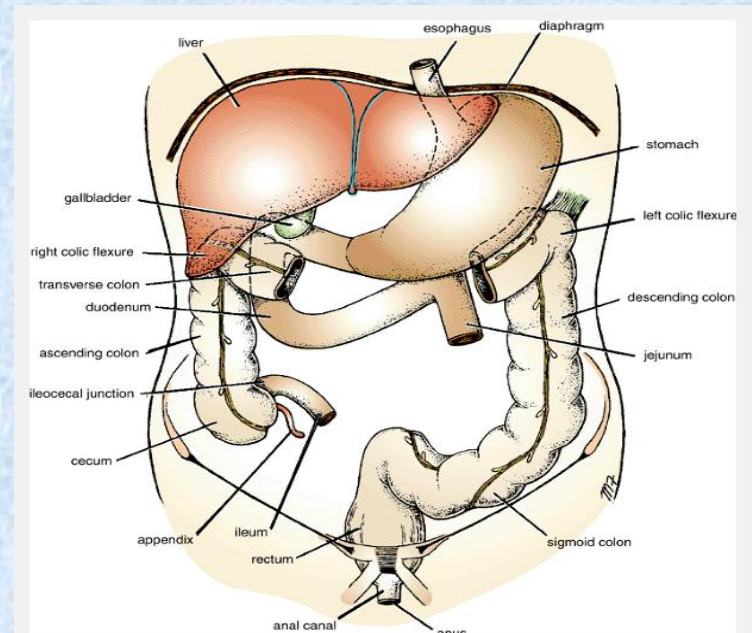
The small intestine is divided into three regions: duodenum, jejunum, and ileum. **The duodenum** is the first part of the small intestine, and most of it is deeply placed on the posterior abdominal wall. It is situated in the epigastric and umbilical regions. It is a C-shaped tube that extends from the stomach around the head of the pancreas to join the jejunum. About halfway down its length the small intestine receives the bile and the pancreatic ducts.



- **The jejunum and ileum** together measure about 20 ft (6 m) long; the upper two fifths of this length make up the jejunum. The jejunum begins at the duodenojejunal junction, and the ileum ends at the ileocecal junction. The coils of jejunum occupy the upper left part of the abdominal cavity, whereas the ileum tends to occupy the lower right part of the abdominal cavity and the pelvic cavity.



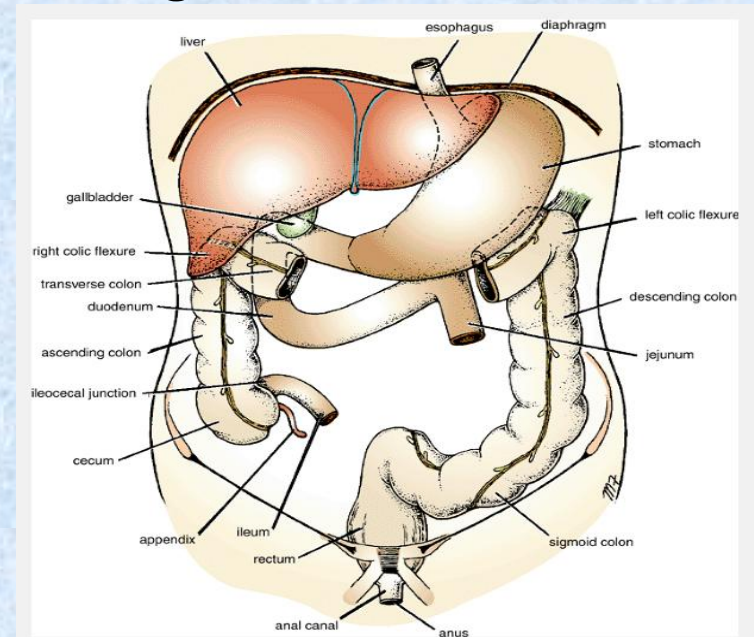
- **Large Intestine**
- The large intestine is divided into **the cecum, appendix, ascending colon, transverse colon, descending colon, sigmoid colon, rectum, and anal canal**. The large intestine arches around and encloses the coils of the small intestine and tends to be more fixed than the small intestine.
- The cecum is a blind-ended sac that projects downward in the right iliac region below the ileocecal junction. The appendix is a worm-shaped tube that arises from its medial side.





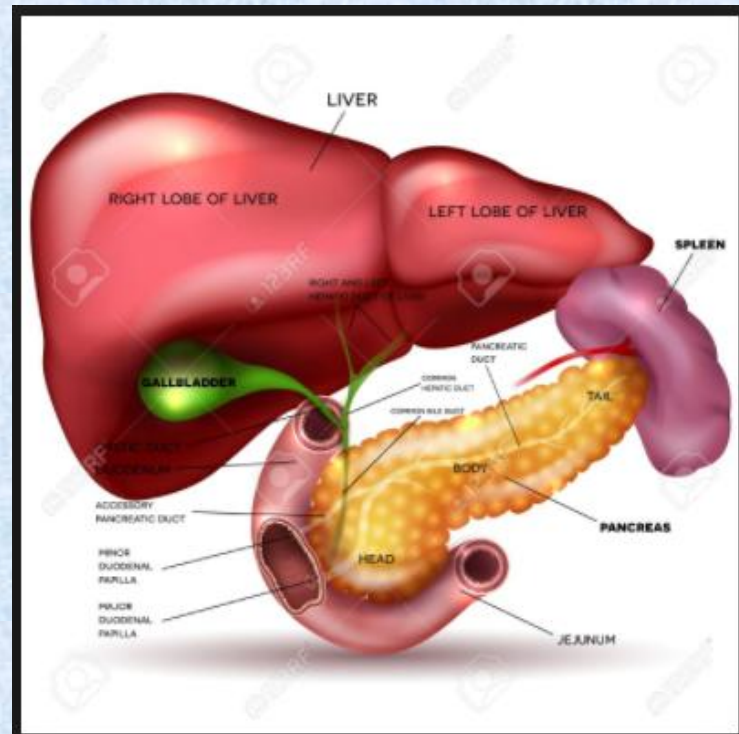
**The ascending colon** extends upward from the cecum to the inferior surface of the right lobe of the liver, occupying the right lower and upper quadrants. On reaching the liver, it bends to the left, forming the right colic flexure.

**The transverse colon** crosses the abdomen in the umbilical region from the right colic flexure to the left colic flexure. It forms a wide U-shaped curve. In the erect position, the lower part of the U may extend down into the pelvis. The transverse colon, on reaching the region of the spleen, bends downward, forming the left colic flexure to become the descending colon.



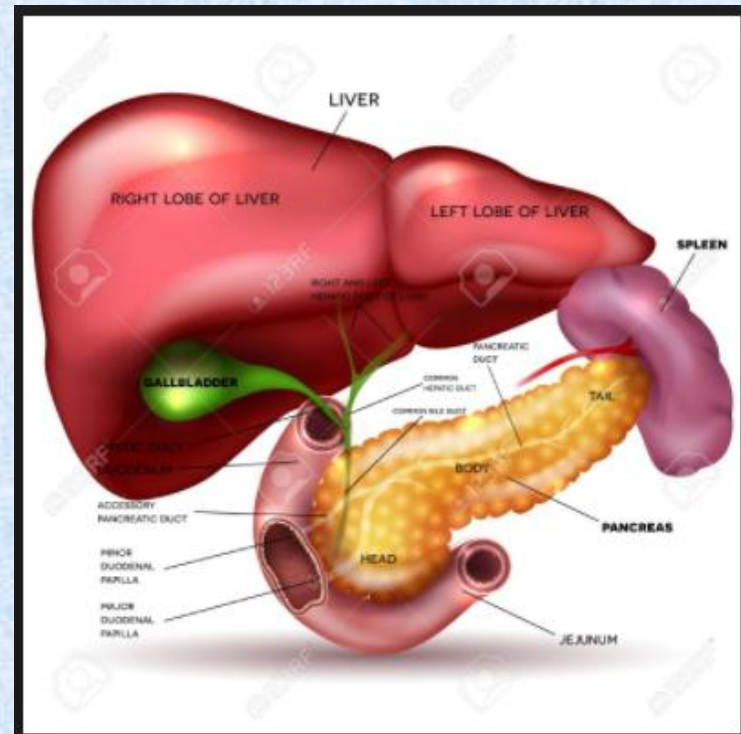
- The descending colon extends from the left colic flexure to the pelvis below. It occupies the left upper and lower quadrants.
- The sigmoid colon begins at the pelvic inlet, where it is a continuation of the descending colon . It hangs down into the pelvic cavity in the form of a loop. It joins the rectum in front of the sacrum.
- The rectum occupies the posterior part of the pelvic cavity. It is continuous above with the sigmoid colon and descends in front of the sacrum to leave the pelvis by piercing the pelvic floor. Here, it becomes continuous with the anal canal in the perineum.

- **Pancreas**
- The pancreas is a soft, lobulated organ that stretches obliquely across the posterior abdominal wall in the epigastric region. It is situated behind the stomach and extends from the duodenum to the spleen.



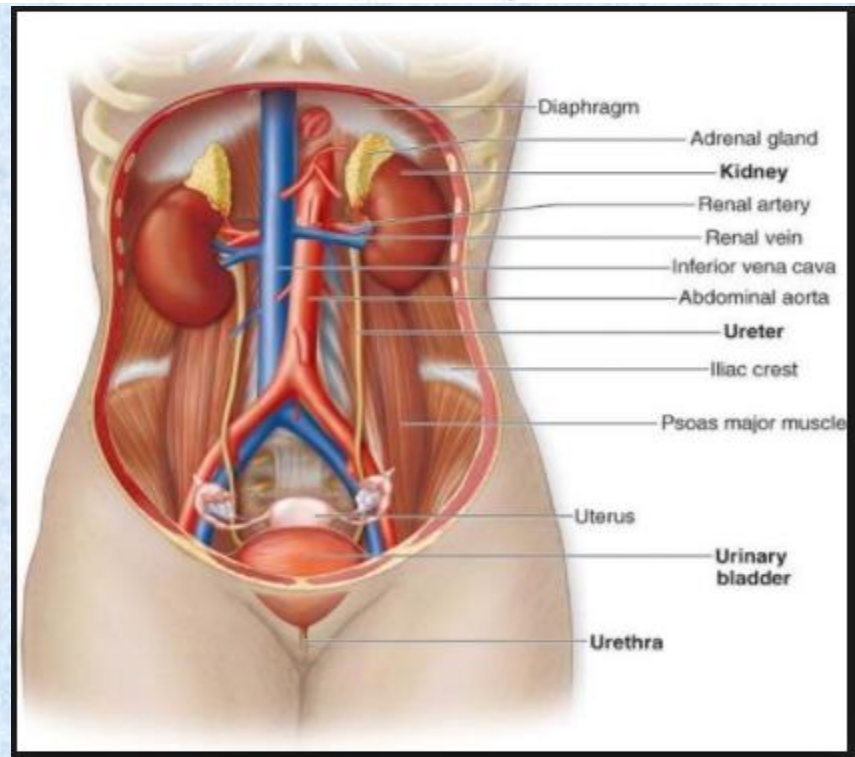
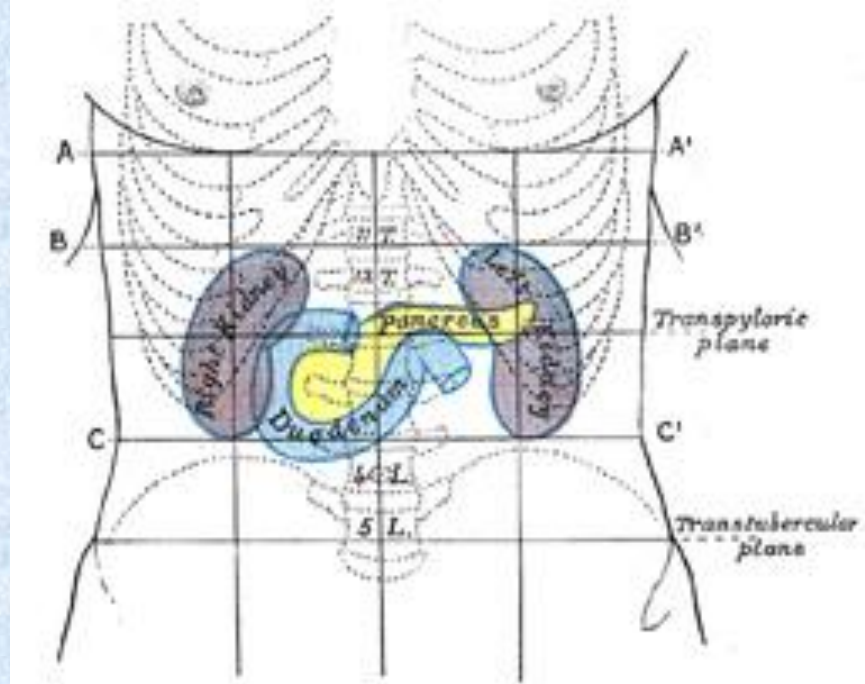


- **Spleen**
- The spleen is a soft mass of lymphatic tissue that occupies the left upper part of the abdomen between the stomach and the diaphragm. It lies along the long axis of the 10th left rib.

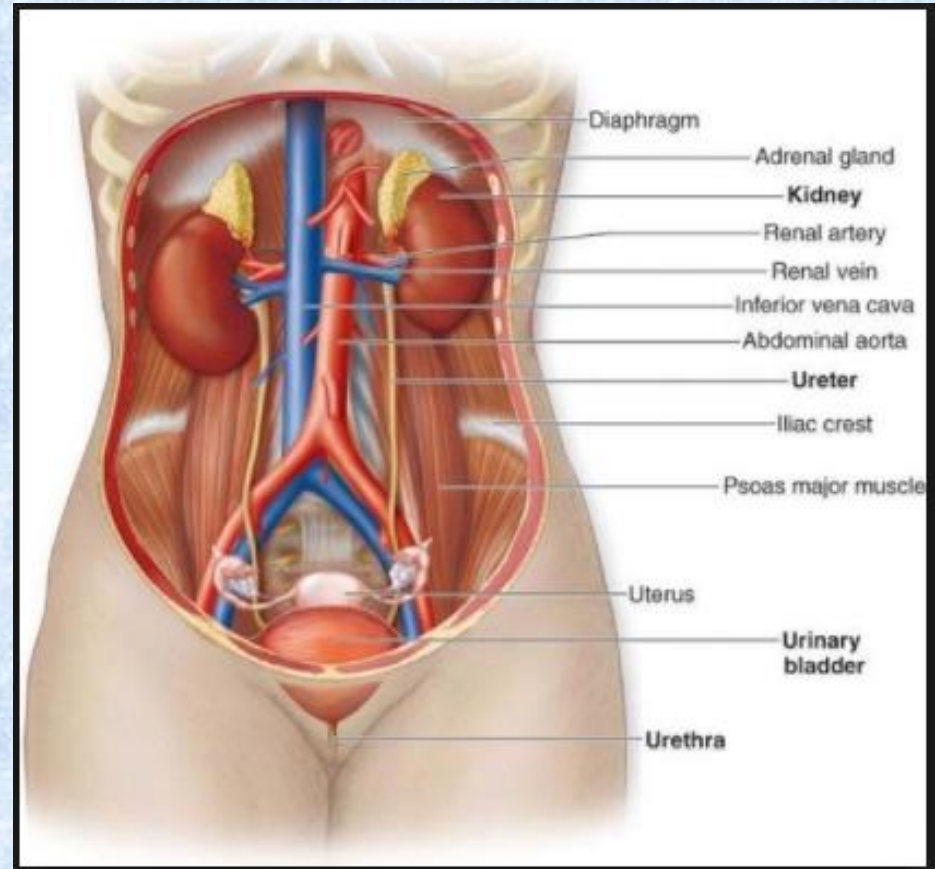


- **Kidneys**

- The kidneys are two reddish brown organs situated high up on the posterior abdominal wall, one on each side of the vertebral column. The left kidney lies slightly higher than the right (because the left lobe of the liver is smaller than the right). Each kidney gives rise to a ureter that runs vertically downward on the psoas muscle.



- **Suprarenal Glands**
- The suprarenal glands are two yellowish organs that lie on the upper poles of the kidneys on the posterior abdominal wall





# Thanks

