



# Large Intestine

divided into the cecum, appendix, ascending colon, transverse colon, descending colon, and sigmoid colon.

**extends from the ileum to the anus**

absorption of water and electrolytes and the storage of undigested material until it can be expelled from the body as feces

## Relations

### Cecum

**Anteriorly:** Coils of small intestine, sometimes part of the greater omentum, and the anterior abdominal wall in the right iliac region

**Posteriorly:** The psoas and the iliacus muscles, the femoral nerve, and the lateral cutaneous nerve of the thigh.

**The appendix is commonly found behind the cecum.**

**Medially:** The appendix arises from the cecum on its medial side

### Ascending Colon

**Anteriorly:** Coils of small intestine, the greater omentum, and the anterior abdominal wall

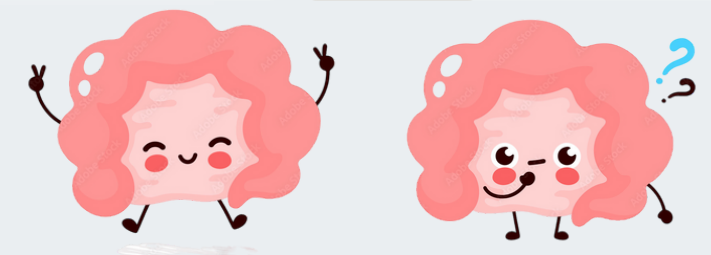
**Posteriorly:** The iliacus, the iliac crest, the quadratus lumborum, the origin of the transversus abdominis muscle, and the lower pole of the right kidney. The

iliohypogastric and the ilioinguinal nerves cross behind it

### Transverse Colon

**Anteriorly:** The greater omentum and the anterior abdominal wall (umbilical and hypogastric regions)

**Posteriorly:** The second part of the duodenum, the head of the pancreas, and the coils of the jejunum and ileum



### Descending Colon

**Anteriorly:** Coils of small intestine, the greater omentum, and the anterior abdominal wall

**Posteriorly:** The lateral border of the left kidney, the origin of the transversus abdominis muscle, the quadratus lumborum, the iliac crest, the iliacus, and the left psoas. The

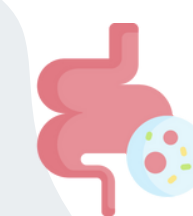
iliohypogastric and the ilioinguinal nerves, the lateral cutaneous nerve of the thigh, and the femoral nerve also lie posteriorly.

### Sigmoid Colon

**Anteriorly:** In the male, the urinary bladder; in the female, the posterior surface of the uterus and the upper part of the vagina

**Posteriorly:** The rectum and the sacrum.

**The sigmoid colon is also related to the lower coils of the terminal part of the ileum**



# Blood Supply

## Cecum

### Arteries

Anterior and posterior cecal arteries form the ileocolic artery, a branch of the superior mesenteric artery

**Lymph drainage**  
the superior mesenteric nodes

**Vein**  
superior mesenteric vein

**Nerve Supply**  
Branches from the sympathetic and parasympathetic (vagus) nerves form the superior mesenteric plexus

## Ascending Colon

### Arteries

The ileocolic and right colic branches of the superior mesenteric artery supply this area.

**Vein**  
superior mesenteric vein

**Lymph drainage**  
the superior mesenteric nodes

## Transverse Colon

### Arteries

The proximal two thirds are supplied by the middle colic artery, a branch of the superior mesenteric artery. The distal third is supplied by the left colic artery, a branch of the inferior mesenteric artery

**Vein**  
superior and inferior mesenteric veins.

**Lymph drainage**  
The proximal two thirds drain into the colic nodes and then into the superior mesenteric nodes; the distal third drains into the colic nodes and then into the inferior mesenteric nodes.

## Descending Colon

### Arteries

The left colic and the sigmoid branches of the inferior mesenteric artery supply this area.

**Vein**  
inferior mesenteric vein

**Lymph drainage**  
Lymph drains into the colic lymph nodes and the inferior mesenteric nodes around the origin of the inferior mesenteric artery.

## Sigmoid Colon

### Arteries

Sigmoid branches of the inferior mesenteric artery.

**Vein**  
The veins drain into the inferior mesenteric vein, which joins the portal venous system.

**Lymph drainage**  
the inferior mesenteric nodes.

**Nerve Supply**  
The sympathetic and parasympathetic nerves from the inferior hypogastric plexuses



### Cecum

**Long**

**2.5 in. (6 – 7.5 cm)**

lies below the level of the junction of the ileum with the large intestine. It is a **blind-ended pouch** that is situated in the right iliac fossa.

**completely covered with peritoneum**

### Appendix

**complete peritoneal covering**

narrow, muscular tube containing a large amount of lymphoid tissue.

**length from (6 to 9 cm)**



### Ascending Colon

**Long**

**5 in. (13 cm)**

extends upward from the cecum to the inferior surface of the right lobe of the liver, where it turns to the left, forming the **right colic flexure**, and becomes continuous with the transverse colon.

**The peritoneum covers the front and the sides**

**The base is attached to the posteromedial surface of the cecum about 1 in. (2.5 cm) below the ileocecal junction.**

**The remainder of the appendix is free.**



### Transverse Colon

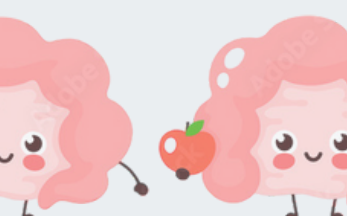
**Long**

**(38 to 50 cm)**

It begins at the right colic flexure below the right lobe of the liver and hangs downward, suspended by the transverse mesocolon from the pancreas. It then ascends to the left colic flexure below the spleen.

The mesentery is attached to the superior border of the transverse colon, and the posterior layers of the greater omentum are attached to the inferior border (**intra**)

**one third of the way up the line joining the right ASIS to the umbilicus (McBurney's point).**



### Descending Colon

**Long**

**10 in. (25 cm)**

extends downward from the left colic flexure, to the pelvic brim, where it becomes continuous with the sigmoid colon

**The peritoneum covers the front and the sides**

**Arteries**  
**The appendicular artery is a branch of the posterior cecal artery**



### Sigmoid Colon

**Long**

**10 to 15 in. (25 to 38 cm)**

extends from the iliac fossa to the third sacral (S3) vertebra, where it joins the rectum. termination of the teniae coli, approximately 15 cm from the anus, indicates the rectosigmoid junction

**has a long mesentery—the sigmoid mesocolon**  
**intra**

**Lymph drainage**  
**two nodes lying in the mesoappendix and then eventually into the superior mesenteric nodes**