LARGE INTESTINES OF THE HORSE

CECUM:

The cecum of the horse is comma-shaped and situated chiefly to the right of the median plane. It extends from the right iliac and sublumbar regions to the floor of the abdomen caudal to the xiphoid cartilage. For description it presents a base, a body, and an apex. The base of the cecum is the most dorsal part. It is strongly curved, with its greater curvature dorsally and its lesser curvature ventrally. Connected with the lesser curvature are the termination of the ileum and the origin of the colon.
The **body** extends cranioventrally from the base and rests largely on the abdominal floor. It gradually tapers toward the apex. The body of the cecum has four longitudinal bands, the dorsal, ventral, medial and lateral. The four muscular bands make four rows of sacculations. The **ileocecal fold** attaches the ileum to the dorsal band of the cecum, whereas the **ceccolic fold** attaches the right ventral colon to the lateral band of the cecum. The **apex** lies on the abdominal floor, usually to the right of the median plane behind the xiphoid cartilage.

The ileum terminates into the cecum through the **ileocecal orifice** (opening) on the lesser curvature of the base of the cecum. It is partially telescoped into the cecum and it is surrounded by a fold of mucous membrane. The **ceccolic orifice** connects the base of the cecum with the ascending colon. It is about two inches caudolateral to the ileocecal orifice. The two openings are separated by a large fold which projects into the interior of the cecum.

**COLON:**

**A. Ascending Colon:**

The ascending (great) colon begins at the cecocolic orifice and terminates in the transverse colon. It is a long U-shaped loop consisting of two parallel limbs and a terminal flexure. The U-shaped loop is folded on itself forming a double horseshoe-shaped loop. In situ, the two horseshoe-shaped loops lie more or less on top of each other. The ventral loop is called the ventral colon, and the dorsal loop is called the dorsal colon. This arrangement forms the following parts of the ascending colon: beginning at the right ventral colon; sternal flexure; left ventral colon; pelvic flexure; left dorsal colon; diaphragmatic flexure; and right dorsal colon that joins the transverse colon.
The right ventral colon (RVC) begins at the lesser curvature of the base of the cecum opposite the last rib. Initially it forms a curve with its convexity facing dorsocaudally. Then RVC passes cranioventrally along the right costal arch and then along the floor of the abdomen. It turns to the left over the xiphoid region forming the sternal flexure and continues as the left ventral colon. The RVC is attached to the cecum by the cecocolic fold.

The left ventral colon (LVC) passes caudally and dorsally on the abdominal floor. At the pelvic inlet it sharply bends dorsally and cranially forming the pelvic flexure, which is continued by the left dorsal colon.

The left dorsal colon (LDC) passes cranially along the left abdominal wall, dorsal and slightly lateral to the left ventral colon. Upon reaching the diaphragm and the left lobe of the liver, it turns to the right forming the diaphragmatic flexure, which lies craniodorsal to the sternal flexure.

The right dorsal colon (RDC) follows the diaphragmatic flexure, and passes caudally dorsal to the right ventral colon. On reaching the medial surface of the base of the cecum it turns to the left and dorsally to join the transverse colon. The RDC has the greatest diameter of any part of the colon.
B. Transverse Colon:

The **transverse colon** is the short part of the colon that connects the right dorsal colon to the descending colon. It passes from right to left cranial to the cranial mesenteric artery.

C. Descending (Small) Colon:

The **descending colon** (small) colon is the continuation of the transverse colon, which begins to the left of the root of the mesentery. It has small diameter than the ascending colon, hence it is also known as the small colon. The descending colon is sacculated and has two distinct teniae or bands, namely, the mesenteric and antimesenteric bands. The mesenteric (mesocolic) band is concealed in the attachment of the descending mesocolon. The descending colon together with the loops of the jejunum lie in the left dorsal part of the abdominal cavity. The small colon of the horse is unusually long, when compared to the descending colon of other domestic species. The muscular bands and sacculations of the descending colon can be easily distinguished during rectal palpation.

**Small colon**

![Diagram of the small colon with labeled parts](Image)

**RECTUM**

The **rectum** continues the descending colon into the pelvic cavity and ends at the short **anal canal**. The first part is suspended by the **mesorectum**, but the second part is attached to the surrounding structures by connective tissue and muscular bands. The second part starts at the level of the fourth or fifth sacral vertebra. It is gradually increase in diameter to form a flask-shaped dilatation called the **ampulla recti**, which extends to the level of the second or third caudal vertebra.