

LARGE INTESTINE

OBJECTIVES:

- 1- Identify the histological structure of the 4 layers of colon.
- 2- Identify the histological structure of the 4 layers of appendix.

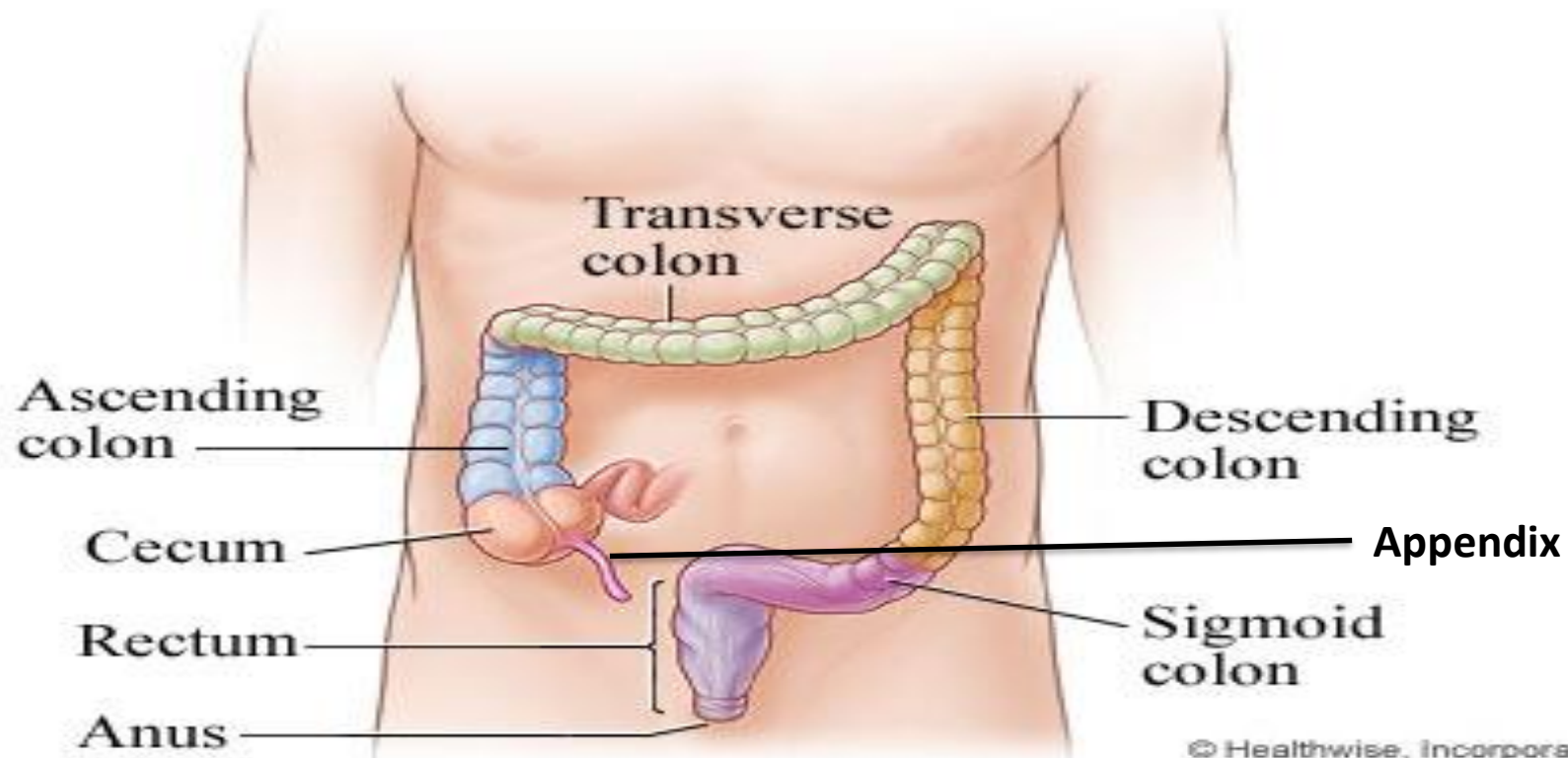


Please be sure to check [Histology Edits](#) before you start, to know about any additions/changes.

LARGE INTESTINE

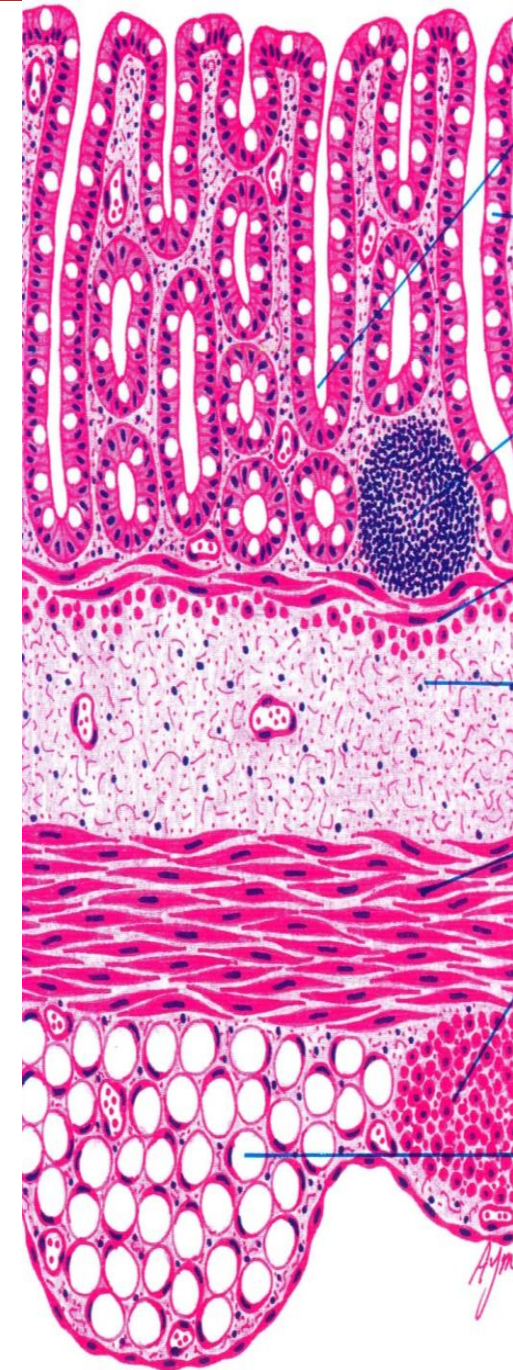
It is divided anatomically into:

- I. Appendix
- II. Cecum
- III. Colon (ascending, transverse, descending & sigmoid)
- IV. Rectum
- V. Anal canal



Colon

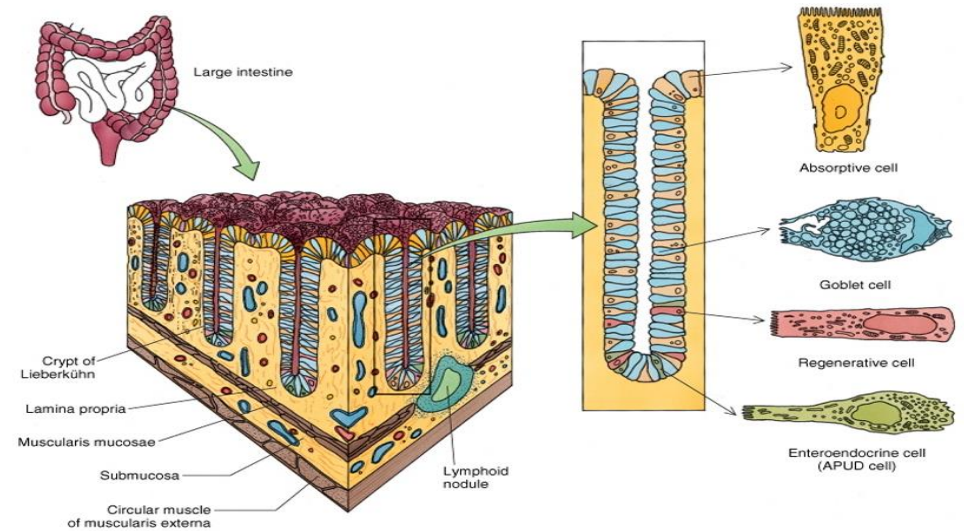
Layer	details
Mucosa	<ul style="list-style-type: none">Shows only crypts (NO villi). <p>Epithelium: simple columnar epithelium with numerous goblet cells.</p> <p>Lamina propria: connective tissue with many crypts, Cells of the crypts are the same as in small intestine but NO Paneth cells.</p> <p>Lymphatic nodules: frequent .</p> <p>Muscularis mucosae: 2 layers of smooth muscle.</p>
Submucosa:	<ul style="list-style-type: none">No glandsMeissner's plexus.
Muscularis Externa:	<ul style="list-style-type: none">Inner circular & outer longitudinal smooth muscle layers.The longitudinal layer is not continuous but in the form of 3 ribbons (teniae coli).Auerbach's nerve plexus.
Serosa:	<ul style="list-style-type: none">C.T. covered by mesothelium.Has fat-filled pouches called appendices epiploicae.



Intestinal Crypts of Colon & Vermiform Appendix

Cells lining the crypts are:

1. Surface columnar absorptive cells.
2. Goblet cells.
3. Enteroendocrine cells.
4. Stem cells.
5. M-cells.



Vermiform Appendix:

- Similar to the colon, but with much smaller diameter, shallow crypts, more lymphoid nodules, and more EE (DNES) cells.
- It is invested by serosa.
- The appendix is a lymphoid organ, it contains more lymphatic nodules than the colon .
- Food does not pass in the lumen of the appendix .

Summary

- The appendix is Similar to the colon, but with much smaller diameter, shallow crypts, more lymphoid nodules, and more DNES cells.
- The colon has only crypts (NO VILLI).
- The colon has NO paneth cells.
- The submucosa has no Glands.
- The Colon and the Appendix are covered by serosa (Mesothelium).
- The Large intestine Has fat-filled pouches called Appendices Epiploicae In the serosa, on the other hand small intestines don't.



MCQs

1- Which one of these structures is not involved in increasing surface area of the mucosa ?

- a) Plicae circulares
- b) Lymphoid nodules
- c) Villi
- d) Microvilli

2- : Which one of these layers contains fat-filled pouches called appendices epiploicae?

- a) Mucosa
- b) Submucosa
- c) Muscularis externa
- d) Serosa

3- : Which one of these layers contains a longitudinal layer that is not continuous but in the form of 3 ribbons (Teniae Coli)?

- a) Mucosa
- b) Submucosa
- c) Muscularis externa
- d) Serosa

4- : Which one of the following is not a cell that lines the crypts of the colon?

- a) M cell
- b) G cell
- c) Goblet cell
- d) Stem cell



Motivation Corner

Done By:
Abdulaziz Alfraiiji

“People often say that **motivation does n’t last. Well, neither does bathing.. that’s why we recommend it **daily.**”**

Thank you for checking our
work

For any correction, suggestion or any useful information do not hesitate to contact us: Histology434@gmail.com