

# Pylorus (histology)

The **pylorus** is the place where the stomach enters the duodenum in the distal and narrowest part of the stomach (pars pylorica). The structure of its wall corresponds to the general structure of the alimentary canal in 4 basic layers.

## Tunica mucosa

### Epithelium

The epithelium of the pylorus is the same as in the other parts of the stomach, and it is a single-layered cylindrical mucus-forming.

### Lamina propria mucosae

single-layered cylindrical mucus-forming tissue, blood vessels and lymphatic follicles (forming lymphatic infiltration). Here we find particularly *deep gastric pits* (up to 2/3 of the mucosa) into which the pyloric glands - **glandulae pyloricae** - open.

Pyloric glands are short coiled and **purely mucinous**. They can secrete a reasonable amount of the enzyme lysozyme and also mucus. In the glands, we find **only one type of mucinous cells** that produce MUC6. It is also possible to demonstrate the presence **of endocrine cells** that **produce gastrin (G-cells)**. These G-cells are scattered freely among the mucinous cells of the glands. The secretion of gastrin stimulates the parietal cells in the gastric glands, which helps the secretion of gastric acids.

### Lamina muscularis mucosae

Formed by bundles of smooth muscle cells, usually arranged in an inner circular and outer longitudinal layer.

## Tunica submucosa

Filled with sparse collagen tissue. It contains blood and lymphatic vessels and lymphoid elements, macrophages.

## Tunica muscularis

It is composed of 3 layers of smooth muscle. These layers are oriented in three directions:

- inner layer – oblique
- middle layer – circular
- outer layer – longitudinal

Around the area of the pylorus **the middle layer** of smooth muscle is strengthened and thus creates **the pyloric sphincter**, which is involved in the separation of the stomach and duodenum. ⚠

## Tunica serosa

The serous layer is thin, formed by sparse collagen fibers and covered on the surface by mesothelium - a single-layered flat epithelium.

## Links

### Related articles

- Fundus (histological preparation)
- Cardia (histological preparation)

### References

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- JUNQUEIRA, L. – KELLEY, Robert – CARNEIRO, José. *Základy histologie*. - edition. H+H, 1997. 502 pp. ISBN 9788085787375.
- Presentation from the website of the Institute of Histology, 1st Faculty of Medicine.

