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 Assignment

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| Sections of the GIT | Stomach | Small intestine | Large intestine | Oesophagus | Oral cavity |
| Mucosa | The mucosa of the stomach is divided into 3 layers;1)The surface epithelium:surface epithelium contains gastric pits and gastric glands2)lamina propria of the stomach is composed of loose connective tissue interspersed with smooth muscle and lymphoid cells3)The muscularis mucosa;mucosa is separated from submucosa by this layer it is composed of smooth muscle | Contains the epithelium,lamina propria,muscularis mucosae, consists of a dense irregular layer of connective with large blood vessels,lymphatics and nerve that branch into the mucosa and muscularis externa | The large intestinal mucosa is architecturally arranged as a layer of deep, densely packed, straight glands that do not extend villi into the lumen. The large intestine epithelium is a simple columnar epithelium composed of two basic cell types responsible for the distinct functions of water resorption and mucus secretion. | The human **esophagus** has **a mucous membrane** consisting of a tough stratified squamous epithelium without keratin, a smooth lamina propria, and a muscularis mucosae. ... The upper third of the **esophagus** contains striated muscle, the lower third contains smooth muscle, and the middle third contains a mixture of both. | The **oral mucosa** is **the mucous** membrane lining the inside of the **mouth**. It comprises stratified squamous epithelium, termed "**oral** epithelium", and an underlying connective tissue termed lamina propria |
| Submucosa | Layer of dense connective tissue.It contains blood and lymph vessels and is infiltrated by lymphoid cells,mastcells and macrophages | Connective tissue layer,which contains blood vessels,lymphatics and the submucosa plexus | The large intestinal submucosa is a largely collagenous layer with occaional aggregations of MALT and larger vasculature and lymphatics | **The submucosa** is highly vascular, and contains loose connective tissue. It contains **oesophageal** glands, that secrete mucus to help ease the passage of swallowed food. | **The submucosa** usually contains loose connective tissue and may also contain adipose tissue or salivary glands, as well as overlying bone or muscle within the **oral cavity**. |
| Muscle layer(Muscularis)  | Composed of smooth muscle fibres. The fibres are oriented in three main direction | Consists of two smooth muscles layers,the outer longitudinal layer and inner circular layer.The myenteric plexus lies between them | The muscularis propria possesses the traditional inner circular layer and outer longitudinal layer of smooth muscle cells common to all GI tract segments. | **The muscularis** mucosa is a thin, double layer of smooth muscle, more substantial in the lower part of the **oesophagus**. Make sure you can identify the epithelium, lamina propria and **muscularis** mucosa  | The **oral cavity** is lined by a mucous membrane (the **oral mucosa**) consisting of a stratified squamous epithelium, which may or may not be keratinized, and an underlying connective tissue layer, the lamina propria. The surface is kept moist with mucus produced by the major and numerous minor salivary glands. |
| Serosa | A thin layer of serous membrane, is the outermost layer of stomach wall. In the stomach,thepithelium is simple columnar | Comprised of loosely arranged fibroblast and collagen with the vessels and nerve passing through it | The serosa forms the outermost layer. The serosa is a thin layer of simple squamous epithelial tissue that secretes watery serous fluid to lubricate the surface of the large intestine, protecting it from friction between abdominal organs and the surrounding muscles and bones of the lower torso | **esophageal** wall is composed of four layers: innermost mucosa, submucosa, muscularis propria, and adventitia. Unlike the remainder of the GI tract, the **esophagus** has no **serosa** | The entire oral cavity is lined by a stratified squamous epithelium. The epithelial lining is divided into two broad types:1. Masticatory epithelium covers the surfaces involved in the processing of food (tongue, gingivae and hard palate). The epithelium is keratinized to different degrees depending on the extent of physical forces exerted on it.

Lining epithelium, i.e. non-keratinised stratified squamous epithelium, covers the remaining surfaces of the oral cavity. The outer layer of connective tissue that surrounds an [artery](https://en.wikipedia.org/wiki/Artery), or [vein](https://en.wikipedia.org/wiki/Vein) – the [tunica externa](https://en.wikipedia.org/wiki/Tunica_externa), is also called the *tunica adventitia*. To some degree, its role is complementary to that of the [serosa](https://en.wikipedia.org/wiki/Serous_membrane), which also provides a layer of tissue surrounding an organ. In the abdomen, whether an organ is covered in adventitia or serosa depends upon whether it is peritoneal or retroperitoneal |
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2) Similarities between the GIT sections

The mucosa of the small and large intestine is lined by a **simple columnar epithelium** which consists primarily of absorptive cells (enterocytes), with scattered goblet cells and occasional enteroendocrine cells

Inthe appendix, the muscularis externa resembles that of the small intestine in that it has an inner smooth muscle layer and a COMPLETE outer smooth muscle layer.

**Submucosa** is the layer of dense, irregular connective tissue or loose connective tissue that supports the mucosa, as well as joins the mucosa to the bulk of underlying smooth muscle (fibers that run circularly within a layer of longitudinal muscle).

The **mucosa and submucosa** form large numbers of folds (or plicae) arranged in a circular fashion in the lumen (therefore called plicae circulares). Additionally, the plicae contain microvilli to further increase the surface area, which increases **absorption**