

Digestive System Th.



Assist. Prof. Dr. Sangar M. AHMED

Grade 1 Course Name : Human Anatomy

Spring Semester

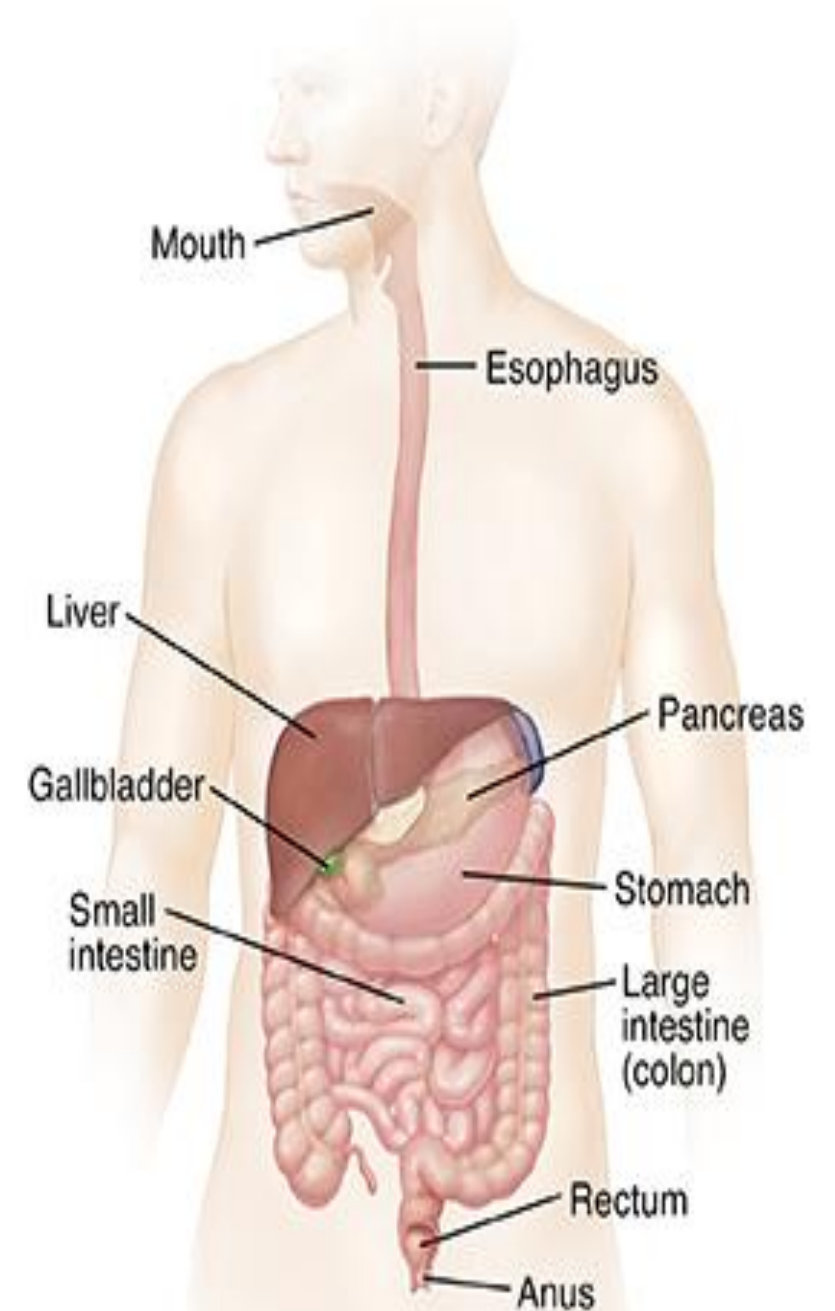
Week No.3

Outlines

- digestive system anatomy
- Functions of digestive system
- The digestive system composed of two main groups of organs:
 - A. Alimentary Canal (nutrition)
 - B. Accessory Digestive Organs

The **digestive system** is made up of the digestive tract and other organs that help the body break down and absorb food.

It is a long, twisting tube that starts at the mouth and goes through the oesophagus, stomach, small intestine, large intestine and



Functions of the Digestive System

1. **Digestion** of food into nutrients
2. **Absorption** of nutrients into the bloodstream
3. **Elimination** of solid wastes.

The digestive system composed of two main groups of organs

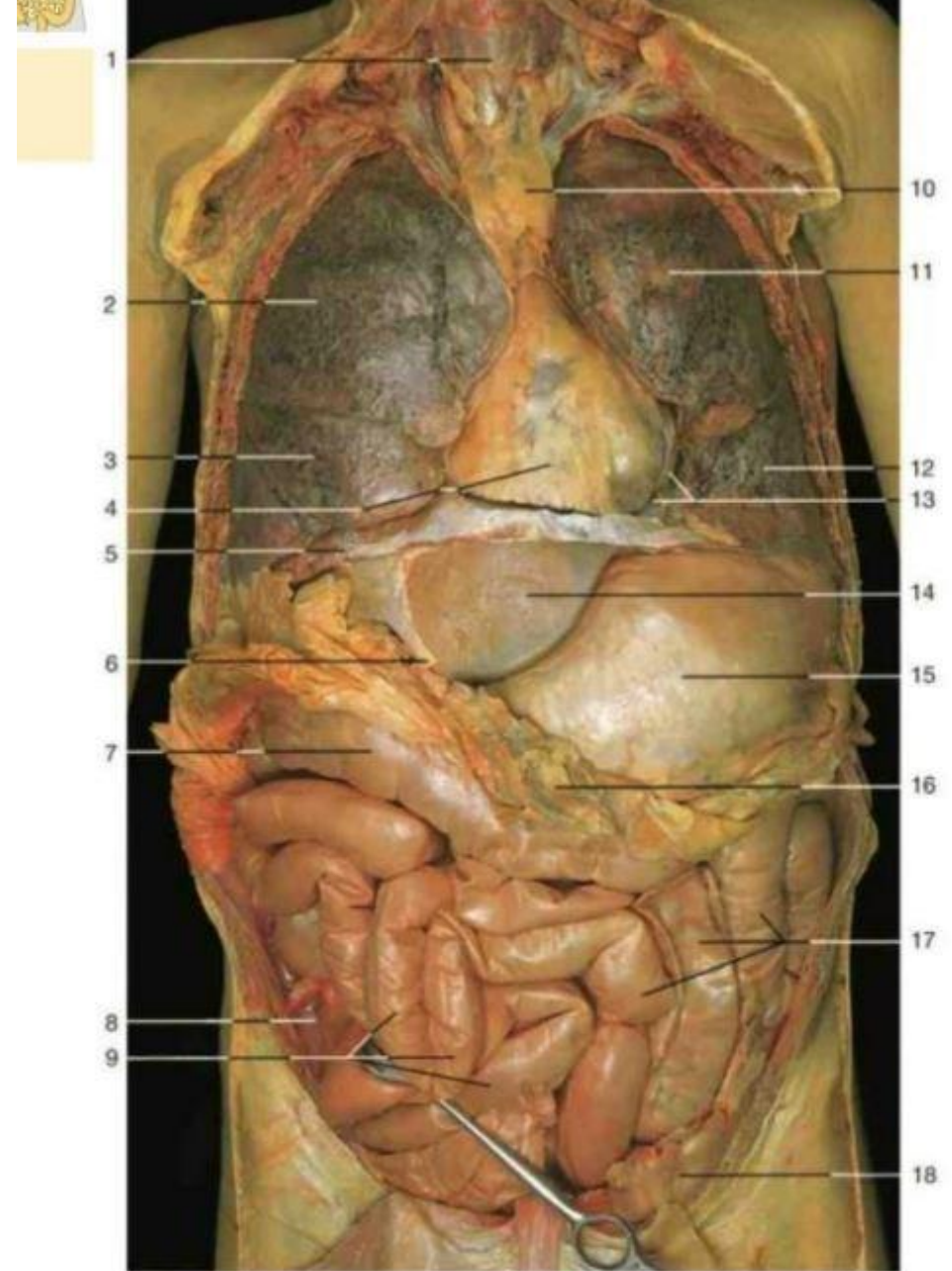
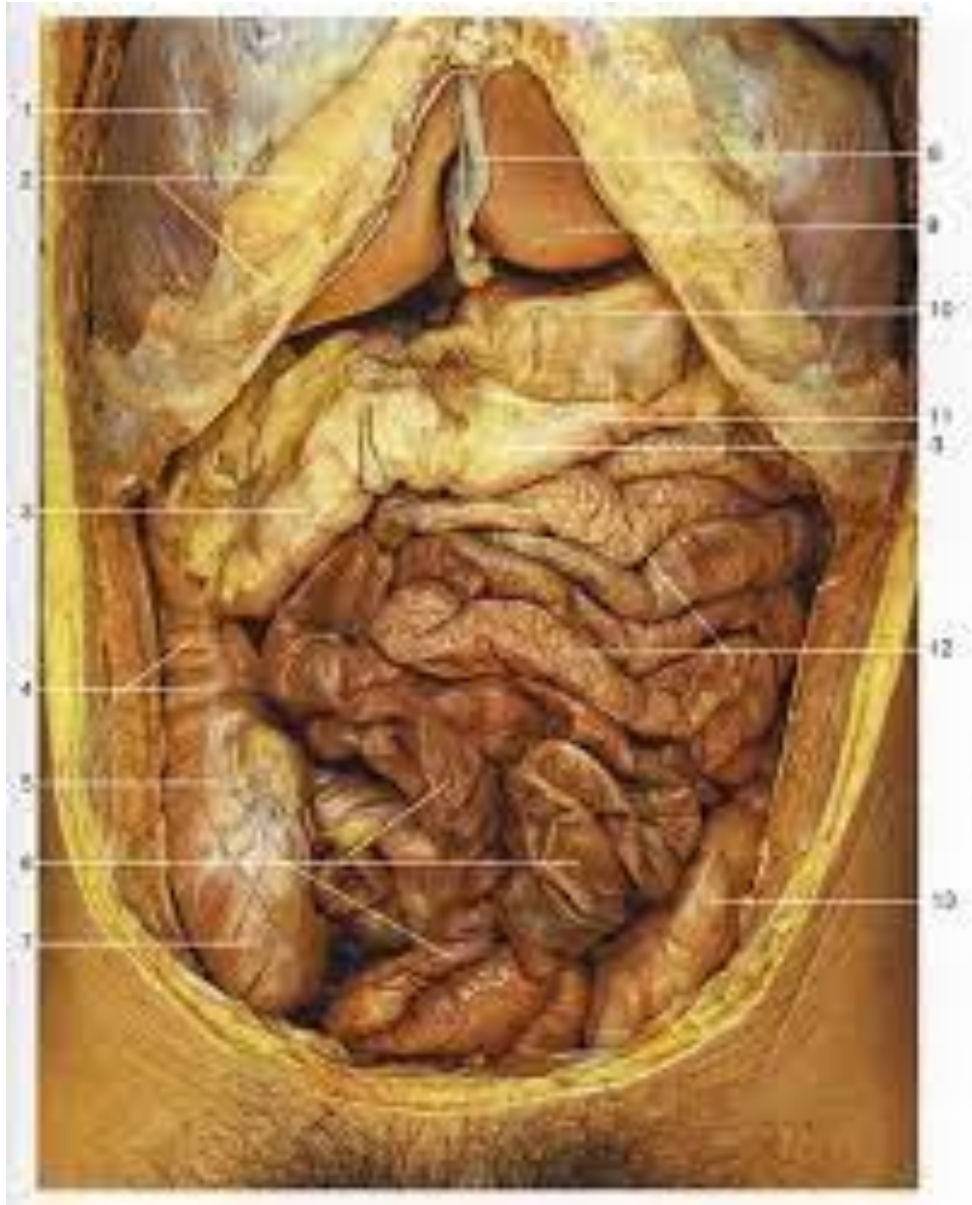
A. Alimentary Canal (nutrition)

1. Mouth
2. Pharynx
3. Esophagus
4. Stomach
5. Small bowel
6. Large bowel

The digestive system composed of two main groups of organs

B. Accessory Digestive Organs

1. Teeth
2. Tongue
3. Gall bladder
4. Salivary glands
5. Liver
6. pancreas



Abdominal organs in situ. The greater omentum has been partly removed or reflected.

Mouth

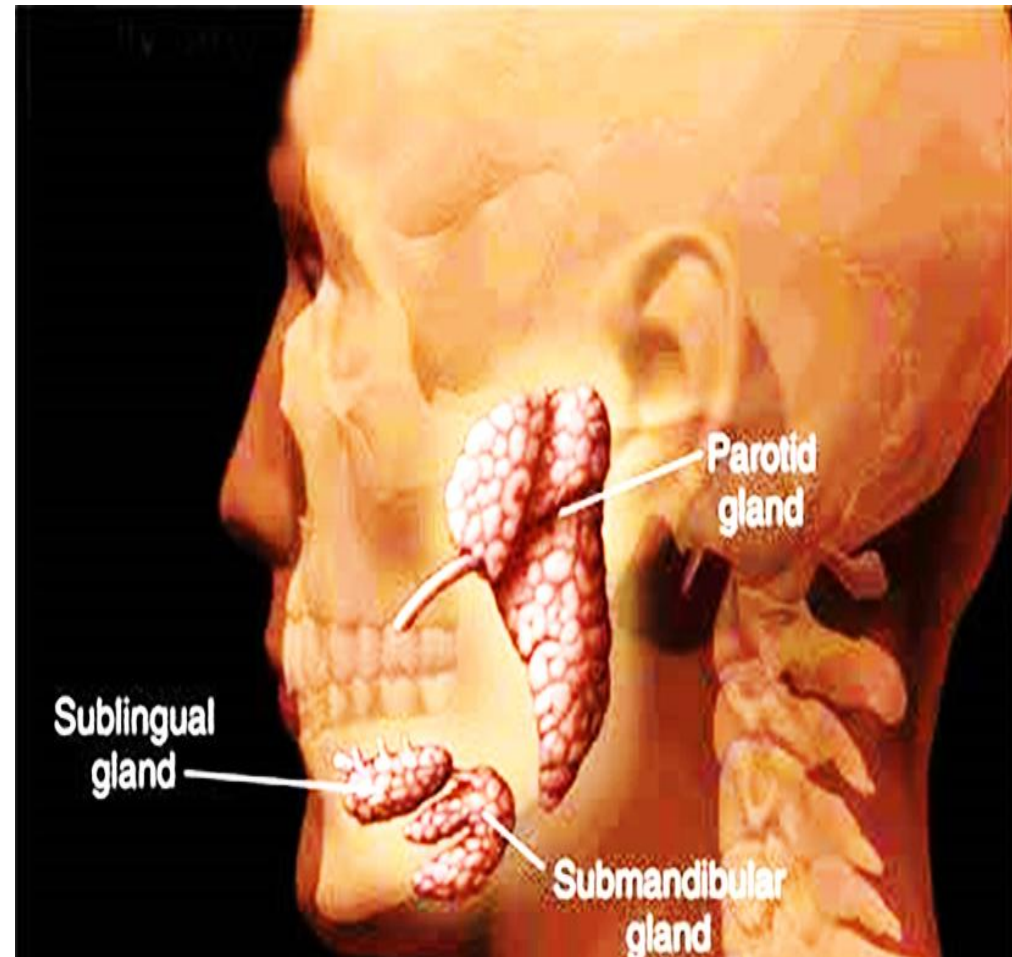
Mouth has two parts:

1. **Vestibule** – space between cheek and teeth.
2. **Oral cavity proper** – space internal to the teeth.

Mouth

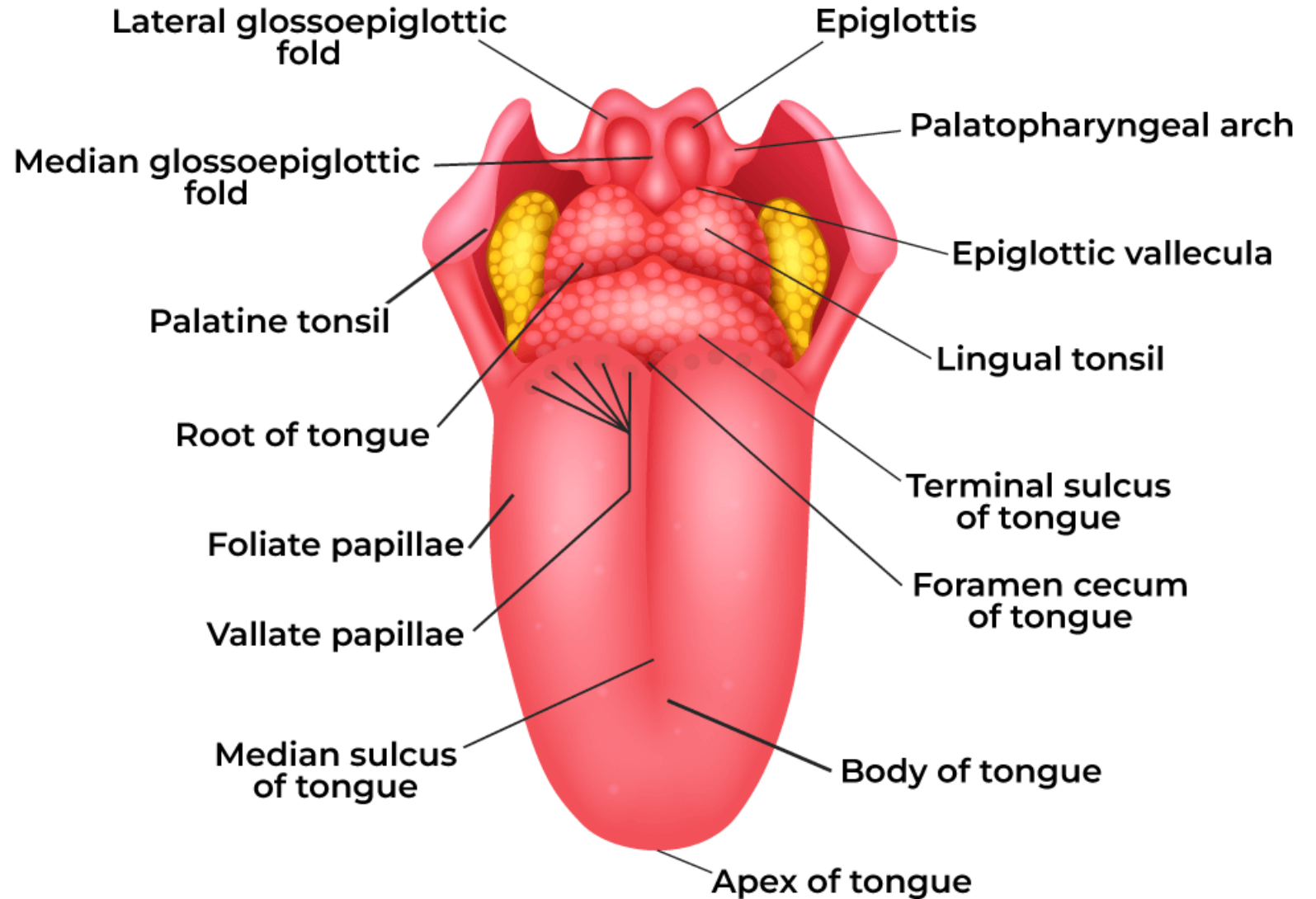
Three pairs of glands open into the oral cavity, producing saliva:

1. Parotid Glands
2. Sublingual Glands
3. Submandibular Glands.



Tongue

The **TONGUE** is a muscular organ formed by a complex arrangement of intrinsic and extrinsic muscles.



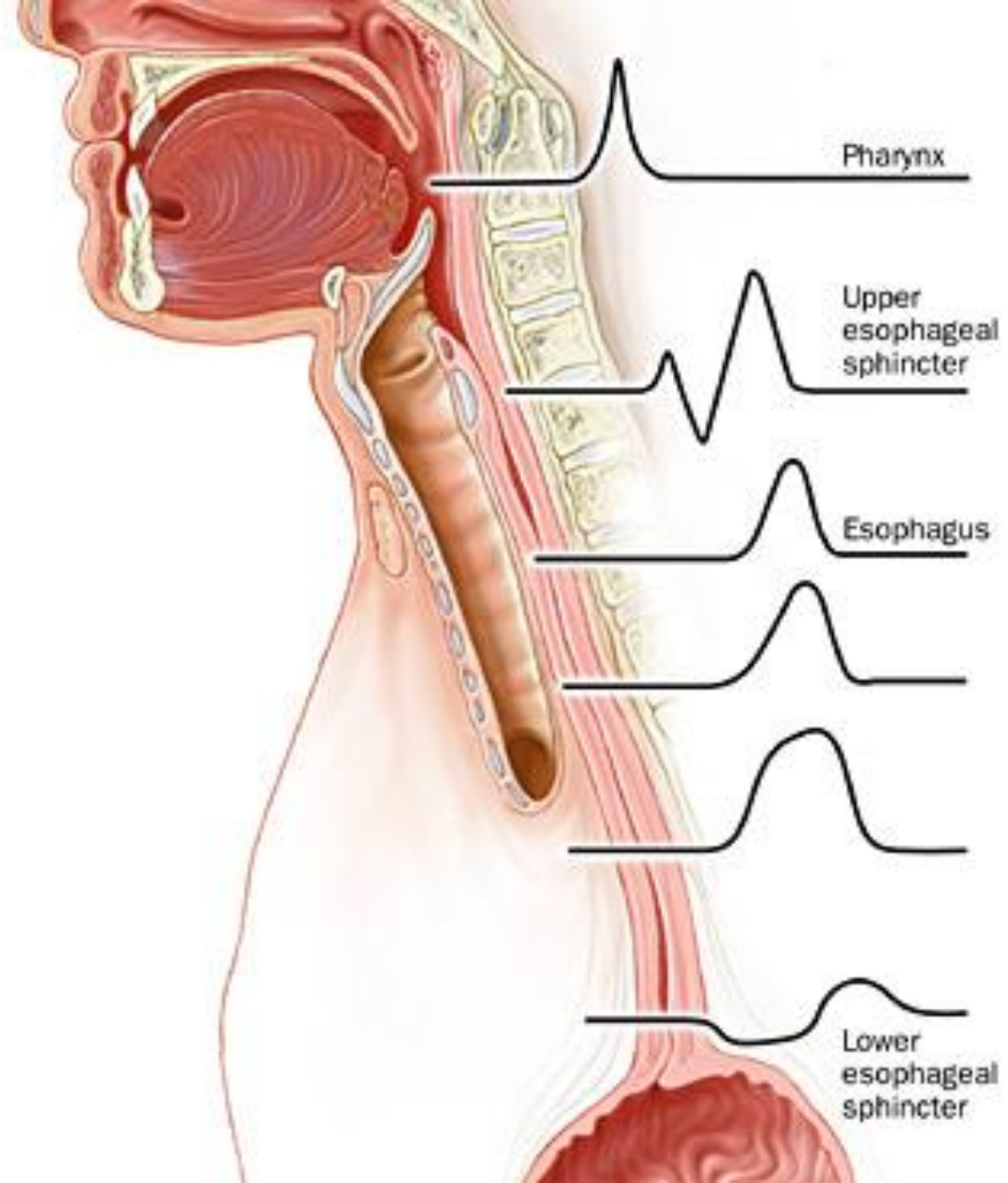
Esophagus

The esophagus is a muscular tube about ten inches (25 cm.) long, extending from the hypopharynx to the stomach.

The esophagus is located in the center of the chest in an area called the **mediastinum**. It lies behind the windpipe (trachea) and in front of the spine.

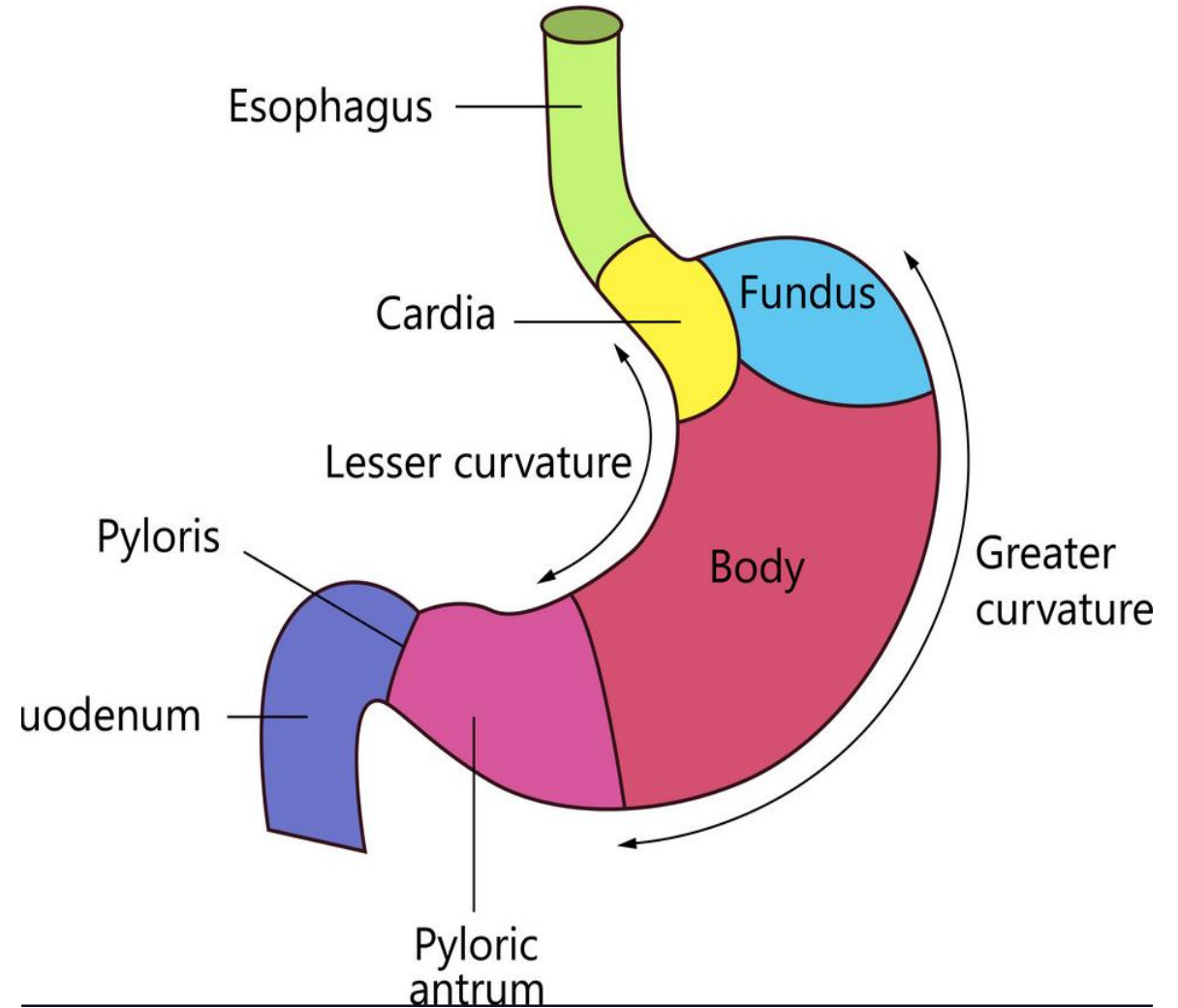
Esophagus

The primary function of the esophagus is to carry food and liquid from the mouth to your stomach



Stomach

The stomach is a muscular, expandable organ, the upper portion called the fundus and the lower portion called the antrum.



Stomach

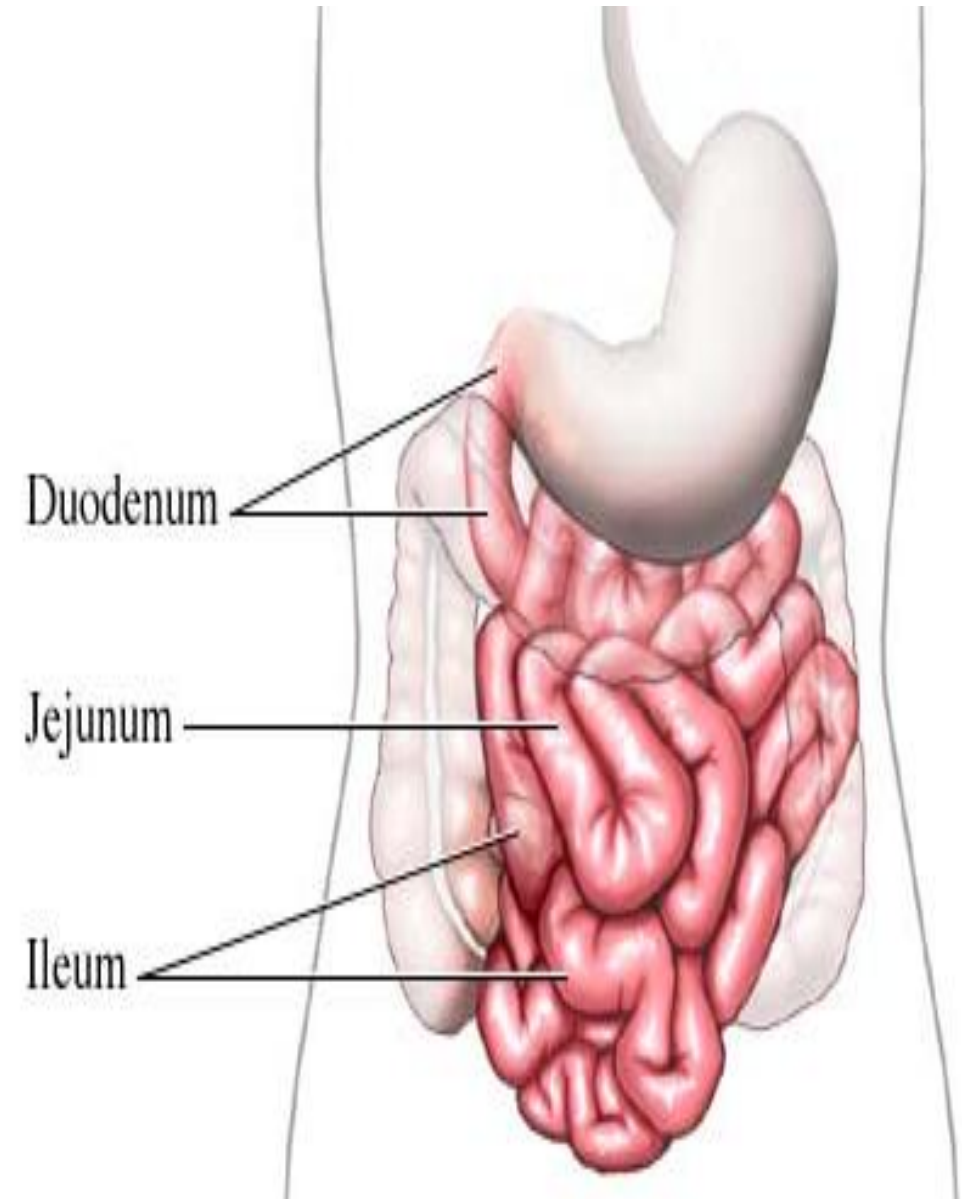
The stomach is the most dilated part of the digestive system, lying between the esophagus and duodenum.

So the stomach sits in the upper abdomen on the left side of the body.

Small intestine

The small intestine is made up of three sections: **the duodenum, the jejunum and the ileum**. On its proximal (near) end, the small intestine beginning with the duodenum connects to the stomach.

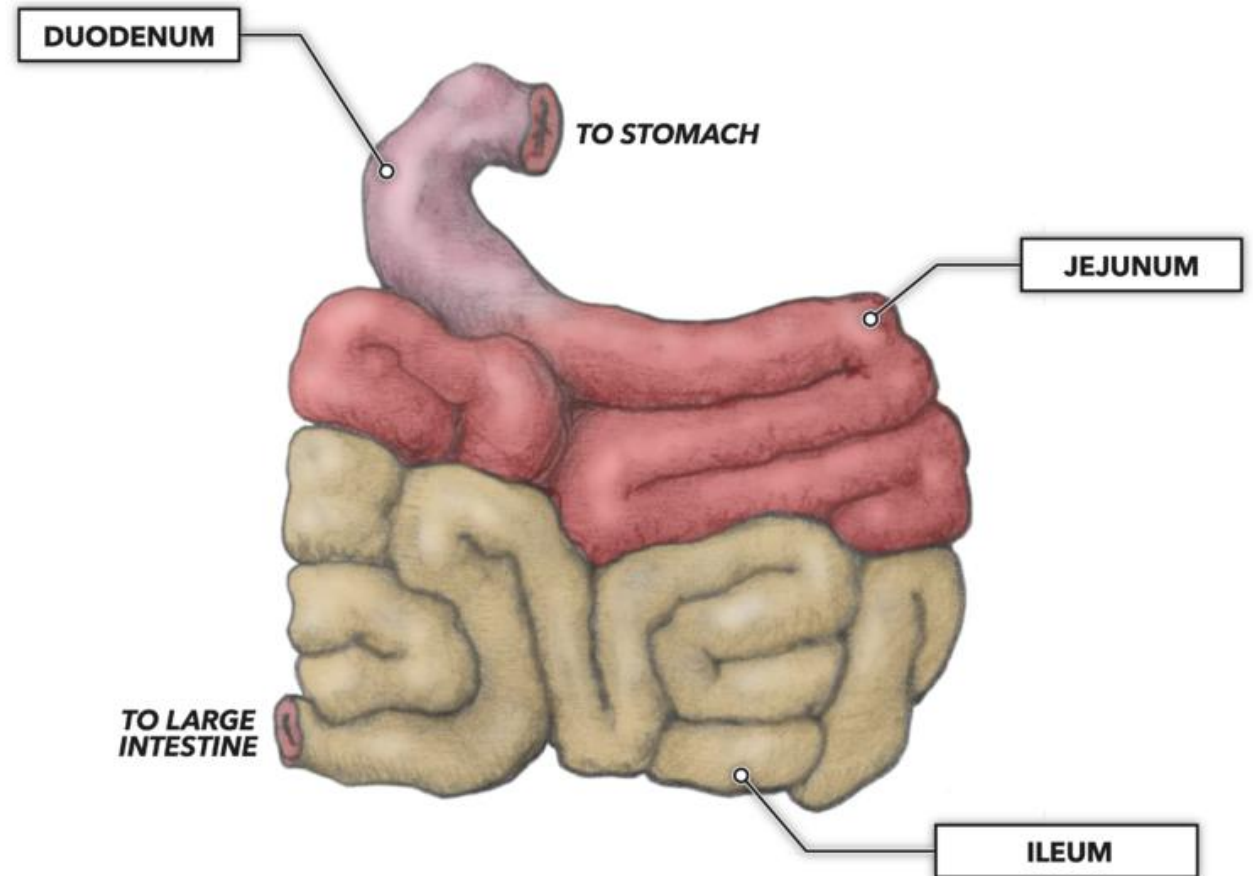
On its distal (far) end, the ileum—the last segment of the small intestine—connects to the large intestine (colon).



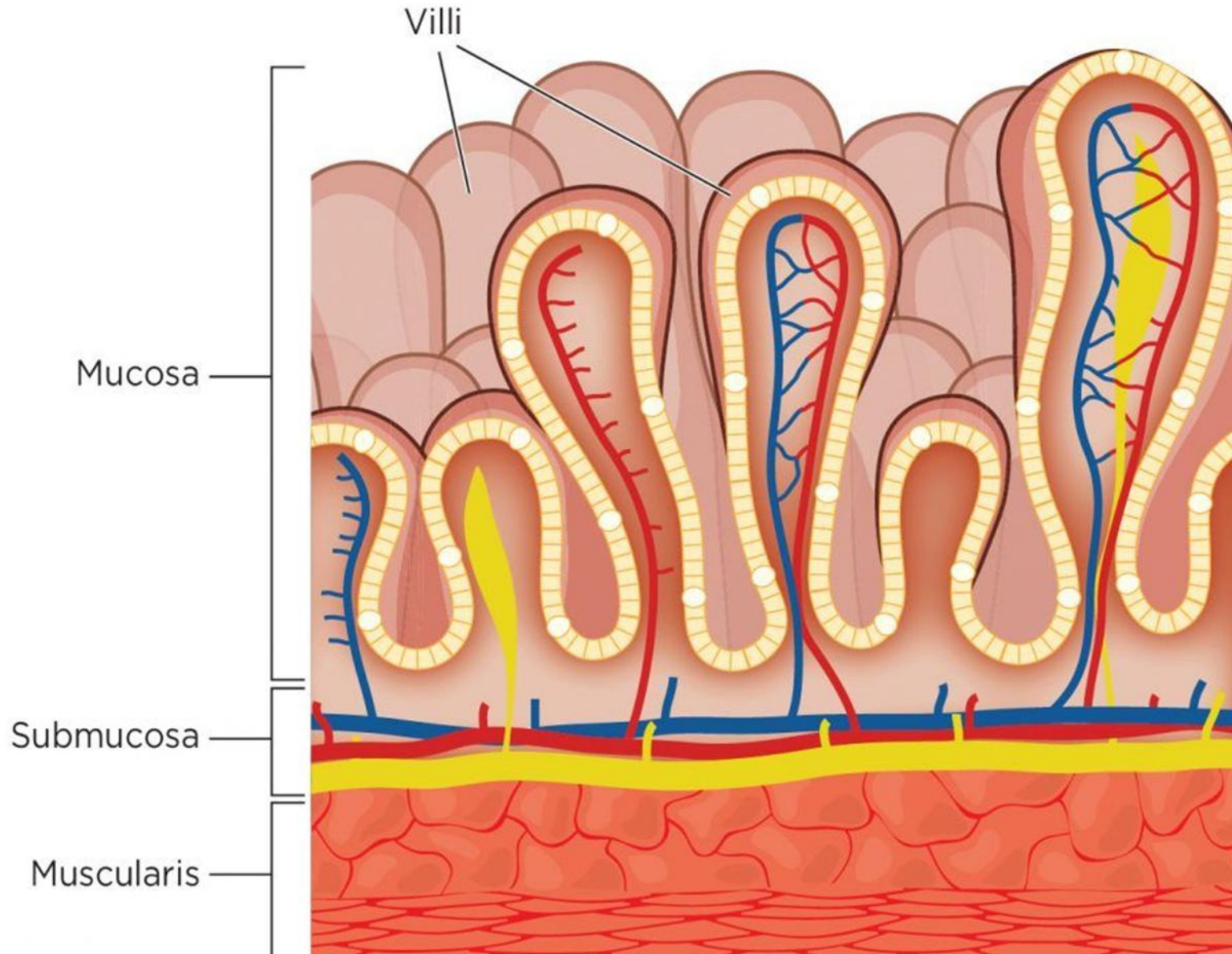
Small intestine

The jejunum and ileum are lined with hair-like protrusions called **villi**.

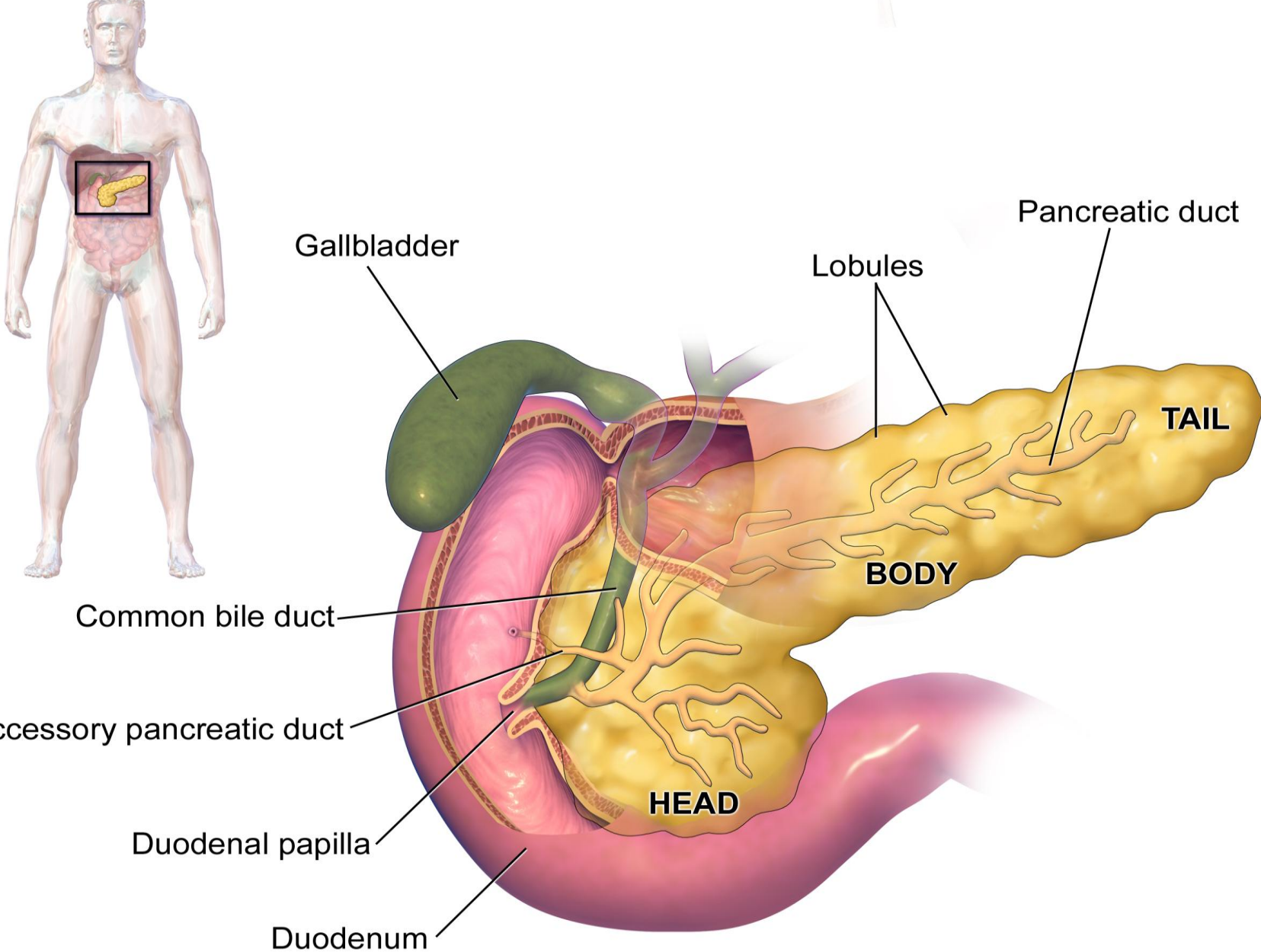
They slow the passage of food, and allow food particles to be captured in among these finger-like villi so that the blood inside the villi can absorb the nutrients in the food



Small intestine



Pancreas



Pancreas

The pancreas is an elongated, tapered organ located **across the back of the belly, behind the stomach.**

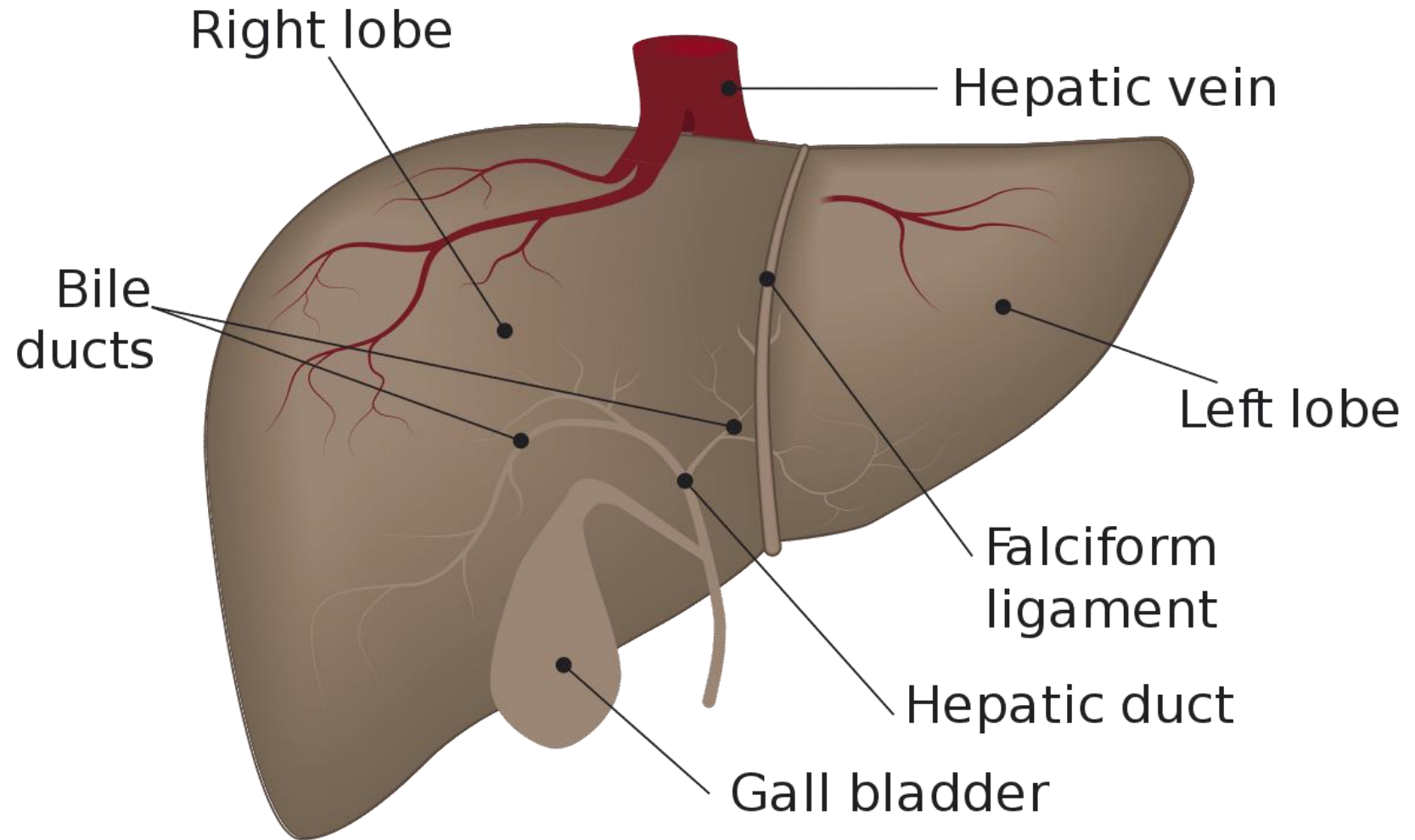
The pancreas secretes pancreatic juice into the duodenum via the pancreatic duct which merges with the common bile duct.

Liver

The liver's primary contribution to digestion is the production of bile or gall which drains into the duodenum, and some is stored in the gallbladder

The liver is located in the upper right-hand portion of the abdominal cavity, beneath the diaphragm, and on top of the stomach, right kidney, and intestines.

Liver

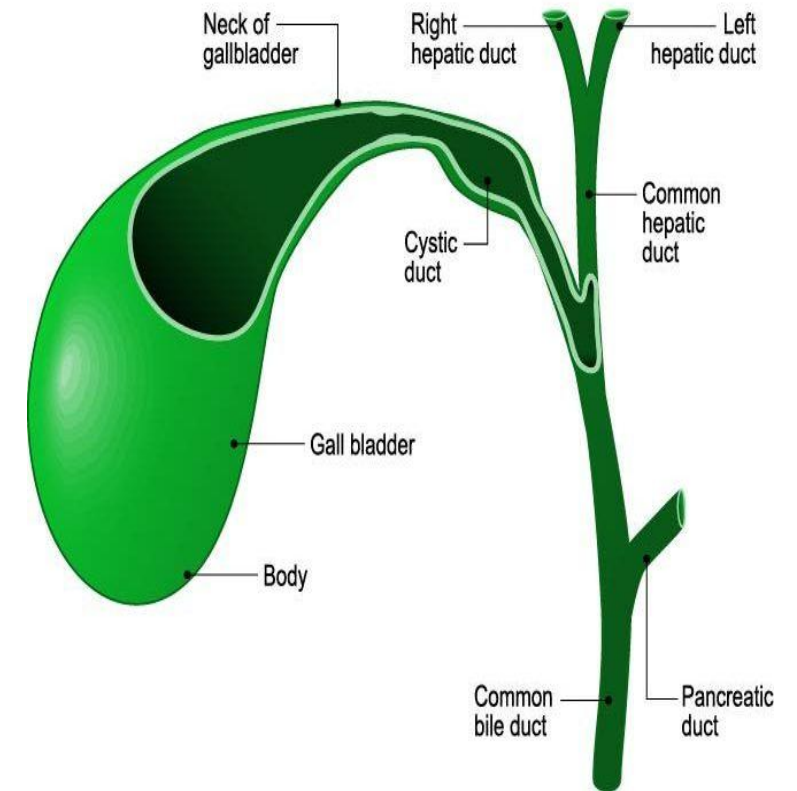


The primary functions of the liver are:

- Bile production and excretion.
- Excretion of bilirubin, cholesterol, hormones, and drugs.
- Metabolism of fats, proteins, and carbohydrates.
- Enzyme activation.
- Storage of glycogen, vitamins, and minerals.
- Synthesis of plasma proteins, such as albumin, and clotting factors.

Gallbladder

The gallbladder is a pear-shaped, hollow structure located under the liver and on the right side of the abdomen.

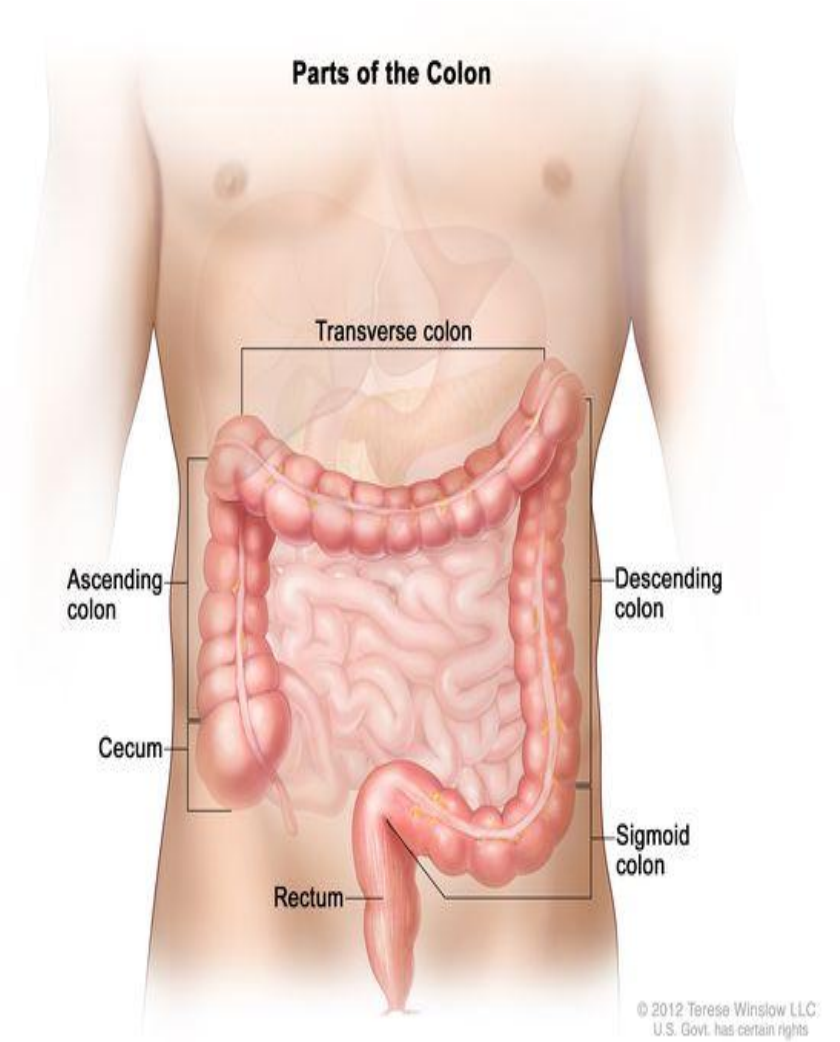


Its primary function is to store and concentrate bile, a yellow-brown digestive enzyme produced by the liver.

Colon

The ascending colon travels up the right side of the abdomen. The transverse colon runs across the abdomen.

The descending colon travels down the left abdomen. The sigmoid colon is a short curving of the colon, just before the rectum



Colon

The colon removes water and some nutrients and electrolytes from partially digested food.

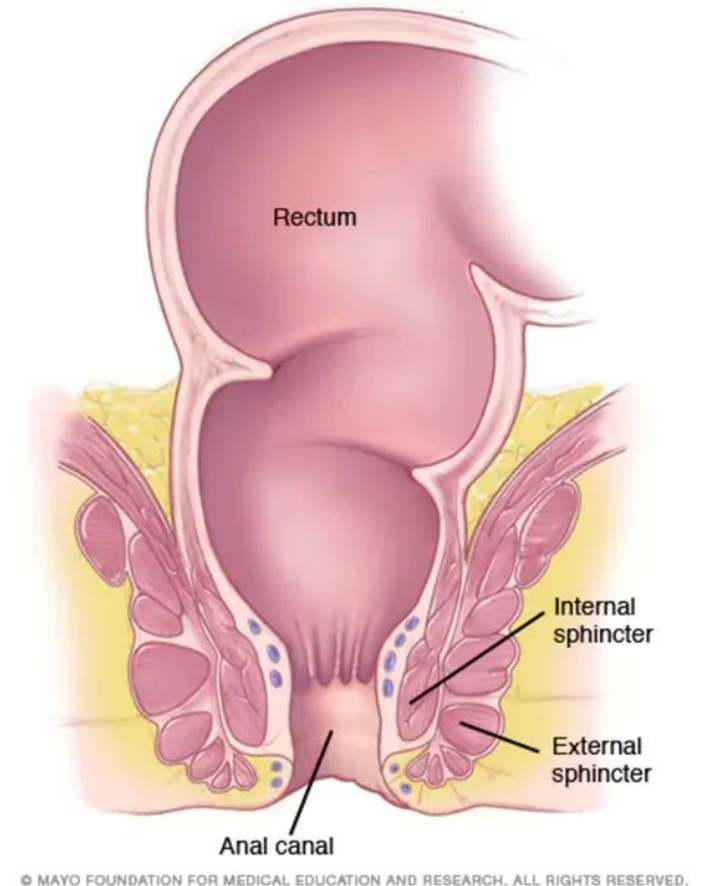
The remaining material, solid waste called stool, moves through the colon, is stored in the rectum, and leaves the body through the anus.

Rectum

The rectum is a straight, 8-inch chamber that connects the colon to the anus. The rectum's job is to receive stool from the colon, let you know that there is stool to be evacuated (pooped out) and to hold the stool until evacuation happens.

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Anus

