



GIT System

**Presented by:
Abdulla El-fatory
Osama El-halwagy**



ILOs :-

A

DEFINE

GIT

D

DESCRIBE

the components of GIT

B

outline

**the functions of the
gastrointestinal tract and
digestive system**

E

EXPLAIN

the digestive glands

C

List

The components of GIT

F

EXPLAIN

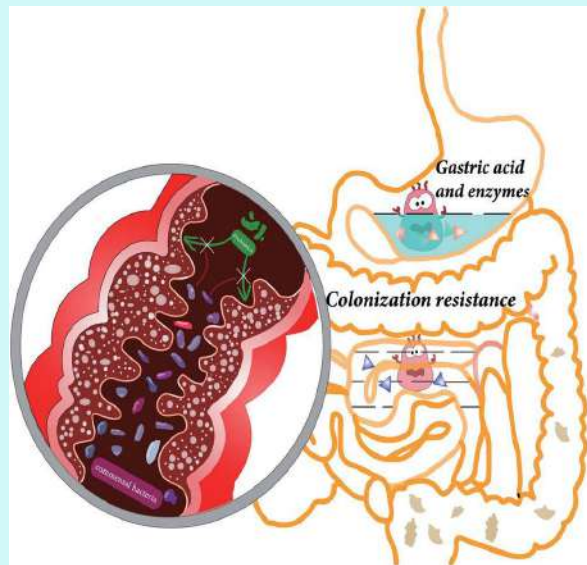
**the layers of salivary
glands**





Define GIT:

The GIT system consist of organs that food and liquids travel through when they are swallowed, digested, absorbed, and leave the body as feces.



GIT Components

1. Alimentary Tract of the Digestive System:

Mouth

Pharynx & Esophagus

Stomach

Small and Large Intestine

Rectum & Anus

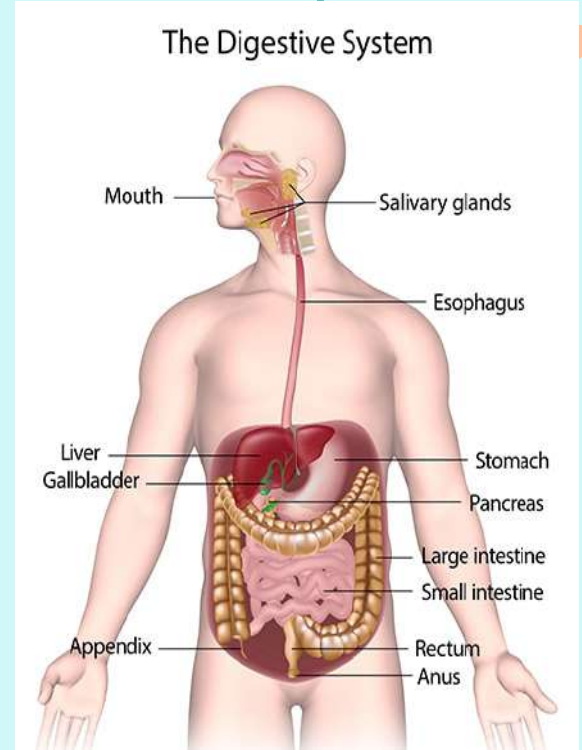
2. Accessory Organs of the Digestive System

Salivary Glands

Liver

Gallbladder

Pancreas









GIT Secretions

Enzymes and hormones for digestion

- Mucus to provide protection and lubrication
- Water
- Electrolytes

➤ Ingestion :-

- The mouth is the entrance of the GI tract.
- The food is moved on the stomach and other organs for digestion and absorption.

Secretion	Region of the GI tract
1 – 1.5 L per day	 Oral cavity
1 – 2 L per day	 Stomach
– 3 L per day	 Small intestine
1 – 0.5 L per day	 Gallbladder
1 – 1.5 L per day	 Pancreas
	 Large intestine

- **Digestion :-**
- Releases nutrients from food
- Takes place in the small intestine

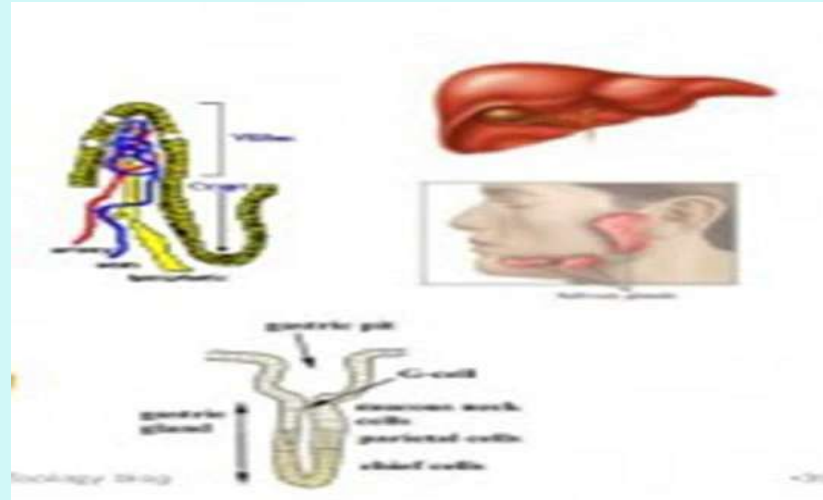
Absorption :-

- Delivers nutrients into the blood
- Water is absorbed in colon later
- **Elimination :-**
- Excretes non-digestible waste
- The fecal mass moves from the colon to the rectum, then it is taken out



Digestive Glands

- There are contain five mains of digestive glands :-
- Salivary glands
- Pancreas
- Liver
- Gastric glands
- Intestinal glands



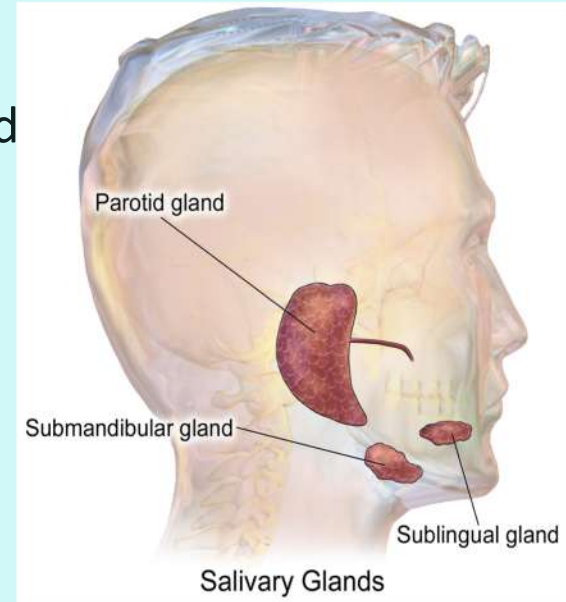
Salivary Glands



The salivary glands are exocrine glands that produce saliva through system of ducts .

There are three pairs of major salivary gland

- Parotid gland
- Submandibular gland
- Sublingual gland



Layers of Salivary Glands

It is organized in to four layers :

- Mucosa

It contains mucous epithelium and lamina propria and muscularis mucosae .

- Submucosa

It is a thick connective tissue layer that contain arteries, veins, lymphatics, and nerves .

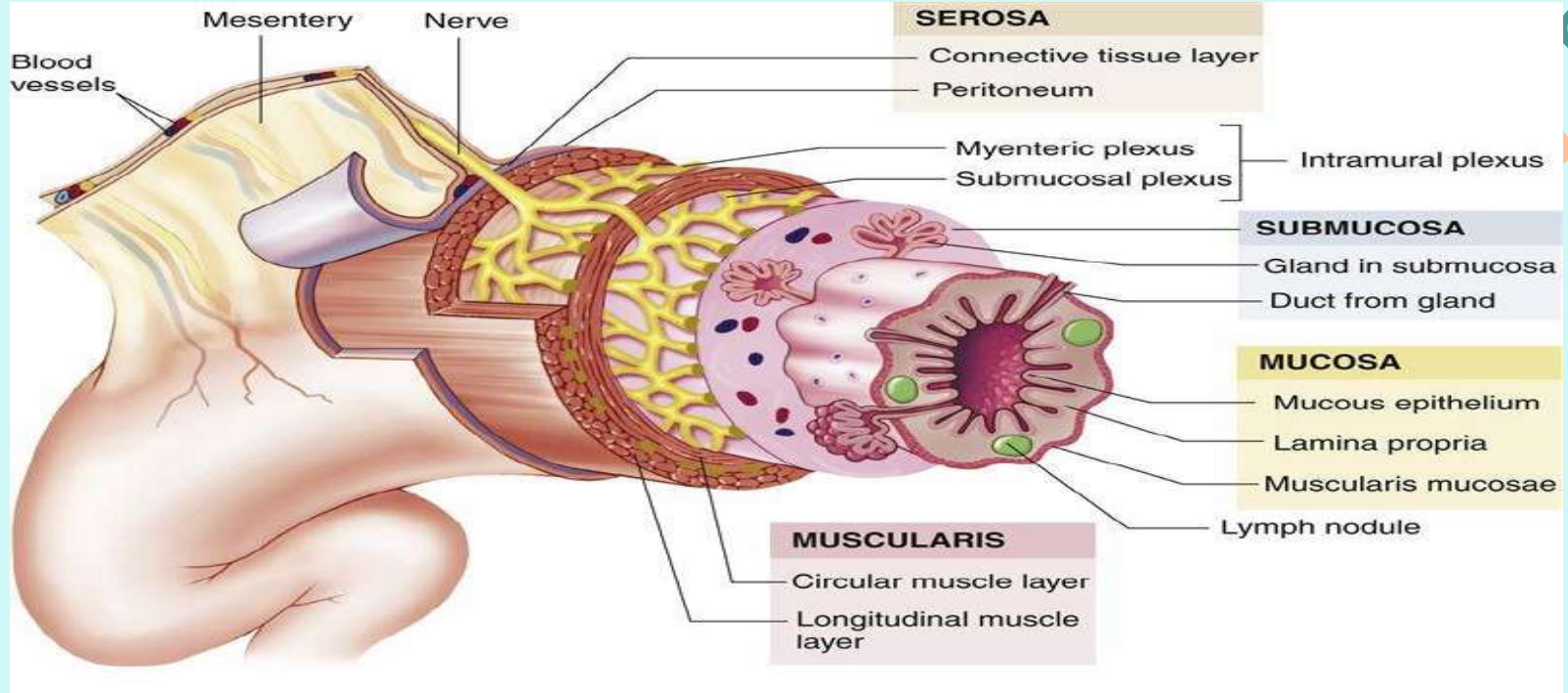
- Muscularis mucosa (outer most layer)

It contains circular muscle layer and longtudinal muscle layer .

- Serosa (serous layer)

It contains provides connective tissue layer and peritoneum , it provides a partition between the internal organs and the abdominal cavity .

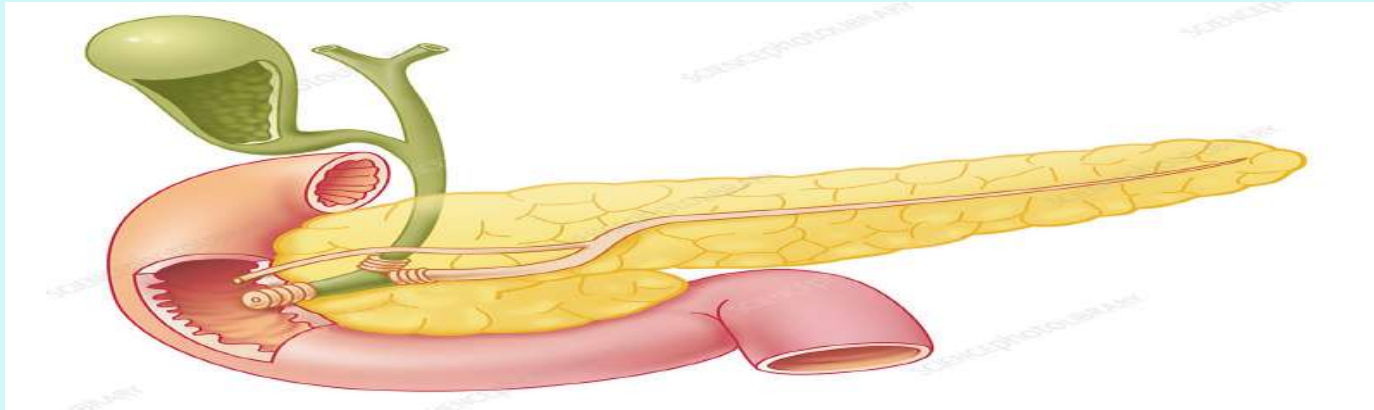




Pancreas

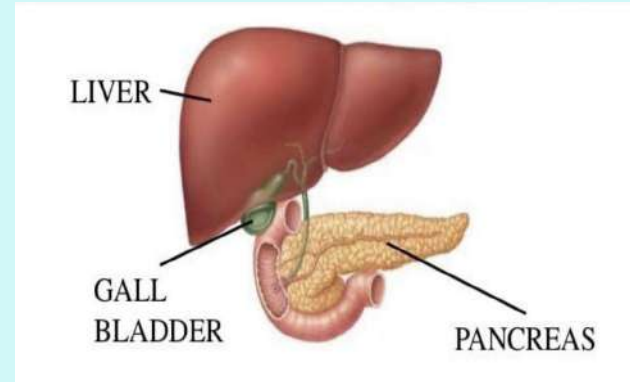
- The pancreas produces chemicals called digestive enzymes such as:
- Protease - proteins
- Carbohydrase (amylase) - carbohydrates
- Lipase - fats

- **A glandular organ located in the abdomen.** It makes pancreatic juices, which contain enzymes that aid in digestion, and it produces several hormones, including insulin.



Liver and Gallbladder

- The liver and pancreas play important part in digestion . The liver produces bile , a substance that breaks up fat particles.
- Bile breaks fats into small droplets. These droplets can then be chemically broken down by enzymes produced in the pancreas.
- The Liver also recycle red blood cells.

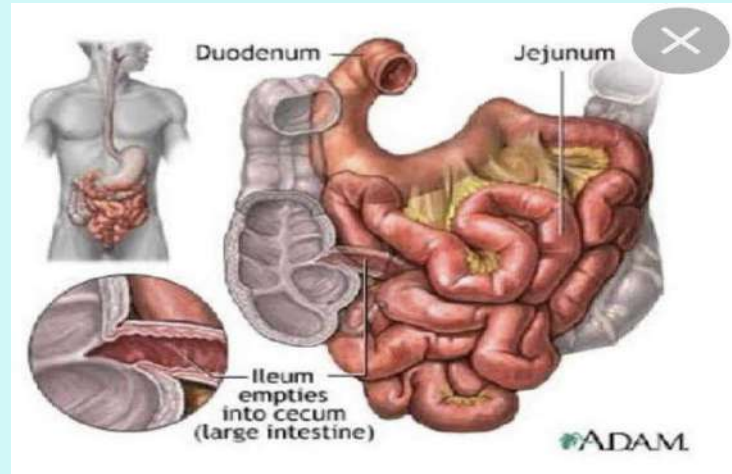


Gastric digestion and secretion:

- The organic process by which food is converted into substances that can be absorbed into the body.
- Gastric secretion is stimulated by the act of eating and the arrival of food in the stomach . Arrival of the food in the intestine also controls gastric secretion . The secreted fluid contains **hydrochloric acid, pepsinogen, intrinsic factor, bicarbonate, and mucus** .

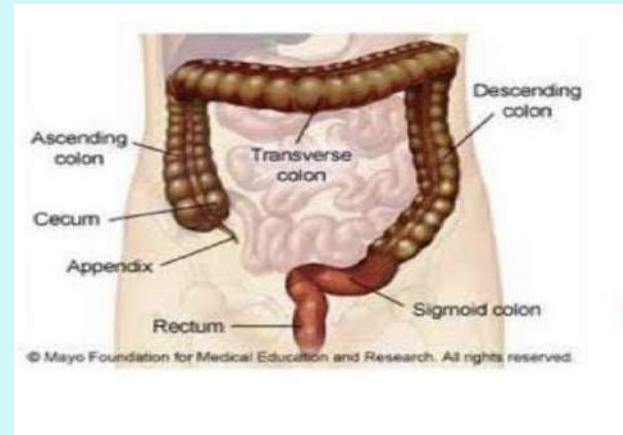
Small Intestine

- The main function of the small intestine is to secrete chemicals that break down food and carry the nutrients away in the blood stream.
- In one word: **ABSORPTION**



Large intestinal

- Undigested and unabsorbed materials pass from small intestine to large intestine.
- Absorbs water from the indigestible foods.
- Waste stays for 10 to 12 hours.
- NO digestion occurs here.



Summary



1. Mouth: Chews food and mixes it with saliva

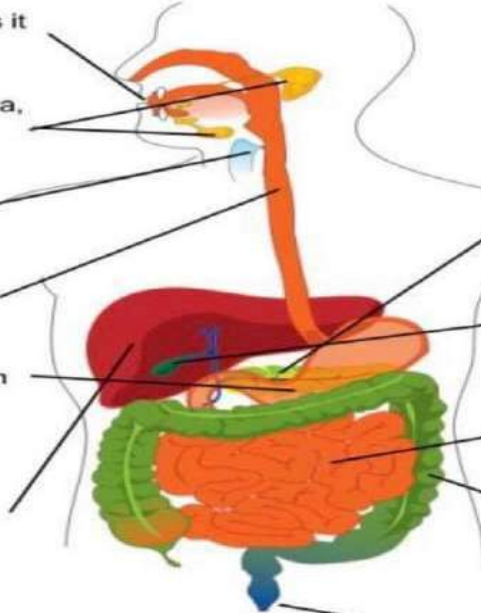
2. Salivary glands: Produce saliva, which contains a starch-digesting enzyme called salivary amylase

3. Pharynx: Swallows the chewed food mixed with saliva called bolus

4. Esophagus: Moves the bolus to the stomach

5. Stomach: Mixes and churns food with gastric juice that contain acid and a protein-digesting enzyme called pepsin creating chyme

6. Liver: Makes bile which aids in the digestion and absorption of fat



7. Pancreas: Releases bicarbonate to neutralize intestinal contents; produces enzymes that digest carbohydrates, protein, and fat

8. Gallbladder: Stores bile and releases it into the small intestine when needed

9. Small Intestine: Digests food and absorbs nutrients into blood or lymph

10. Large Intestine: Absorbs water and some vitamins and minerals; home to intestinal bacteria; passes waste material

11. Anus: Opens to allow waste to leave the body

References



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**THANK
YOU**