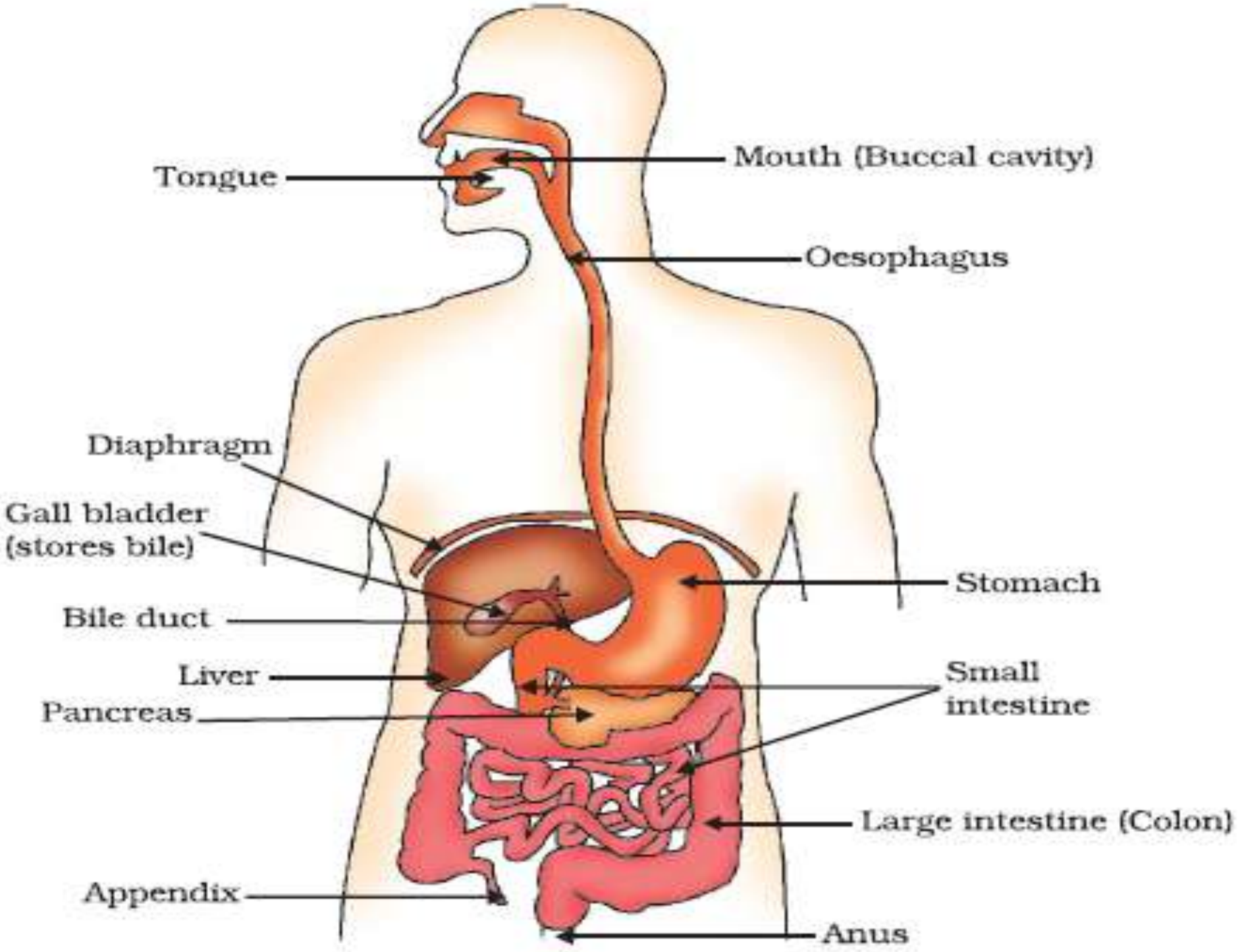
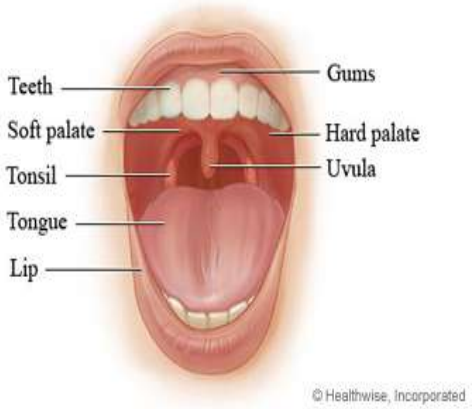

Tongue
Mouth (Buccal cavity)
Oesophagus
Diaphragm
Gall bladder
(stores bile)
Stomach
Bile duct
Liver
Small
intestine
Pancreas
Large intestine (Colon)
Appendix
Anus

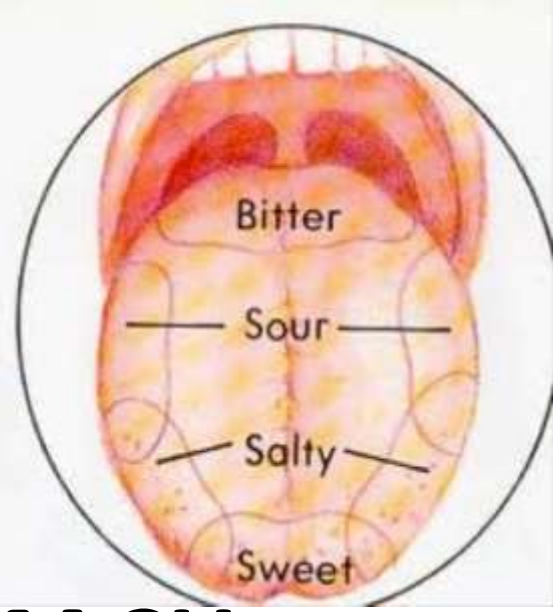
DETAILS of the STRUCTURE



MOUTH

- Food enters here, is kept inside by lips and cheeks.
- Tongue taste buds: sweet, salty, sour, bitter.
- Tongue controls movement of food as teeth masticate, and it moves the bolus to be swallowed.
- Six salivary glands produce water-mucin-enzyme. Makes food soft and slimy. Starts digesting starch.
- Tooth formula: 2123 incisors/canines/pre-/molar
  2123 incisors/canines/pre-/molar

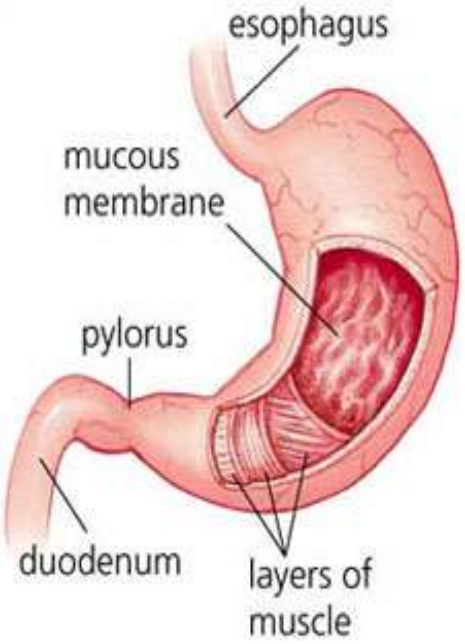
THE TASTING TONGUE

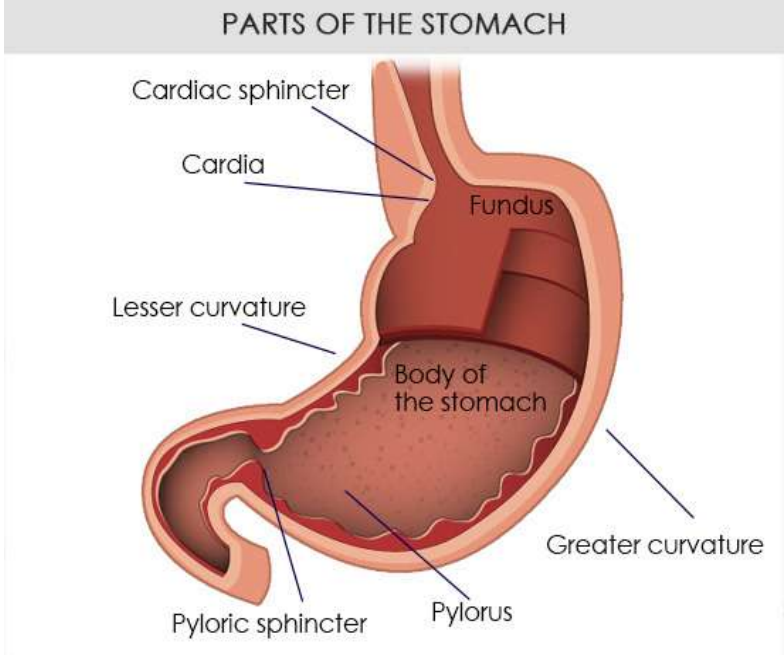


From MOUTH to STOMACH

- **Pharynx** = where swallowing happens.
- **Epiglottis** = a flap that moves from blocking the tube to your stomach while you breathe, to blocking your lungs when you swallow (through the process of peristalsis).
- **Oesophagus** = mucus-lined tube to your stomach.

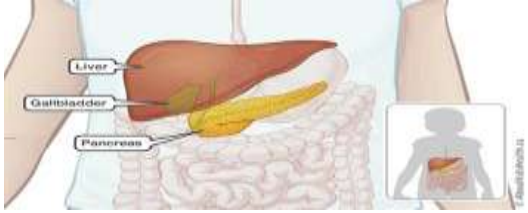
STOMACH





- It is the collecting-bag for eaten food. Divided into sections called *fundus, corpus, pylorus*. Starts digesting Proteins.
- *Cardiac sphincter* is the one-way valve allowing food in.
- *Pyloric sphincter* controls food leaving into intestines.
- Stomach is wrinkled (with *rugae*) when emptier - it can fill up into a tighter ball after eating a feast.
- Gastric juice = HydroChloric Acid (HCl) + Enzymes.
- Chyme = watery mixture of food in the stomach.

IMPORTANT ATTACHMENTS



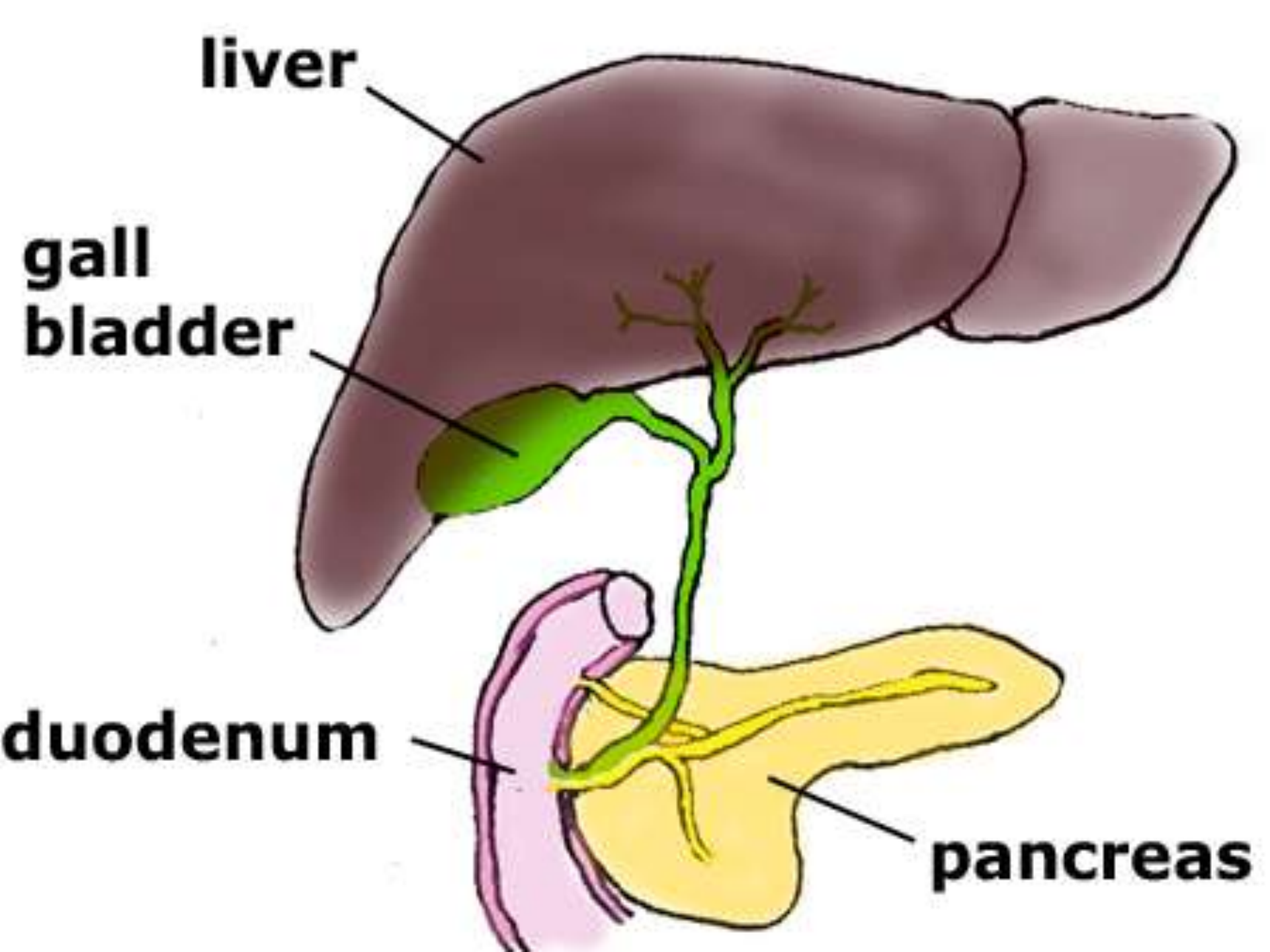
LIVER – Turns extra glucose into glycogen and fat.

- Turns extra amino acids into urea for excretion.
- Detoxifies poisonous substances (like alcohol).
- Stores minerals (Fe, Cu) and Vitamins ABDEK.
- Makes bile for intestines to break down fats.

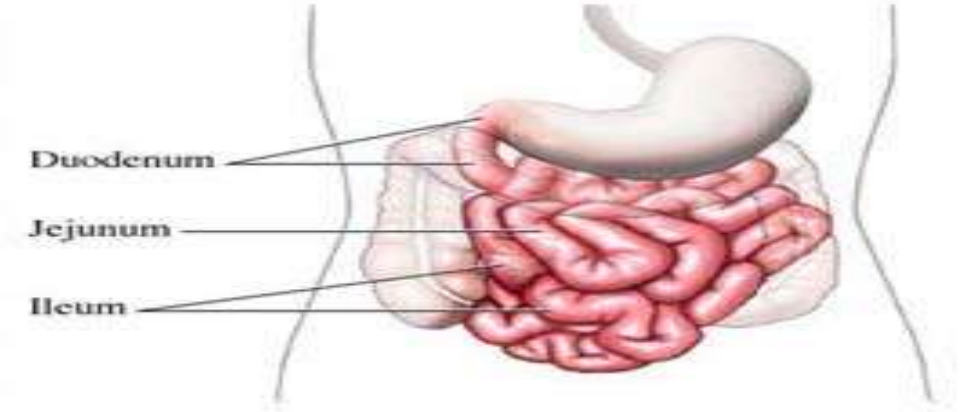
GALL BLADDER – Stores bile, releases it into duodenum (the first section of the small intestine).

PANCREAS – Releases enzymes into duodenum.

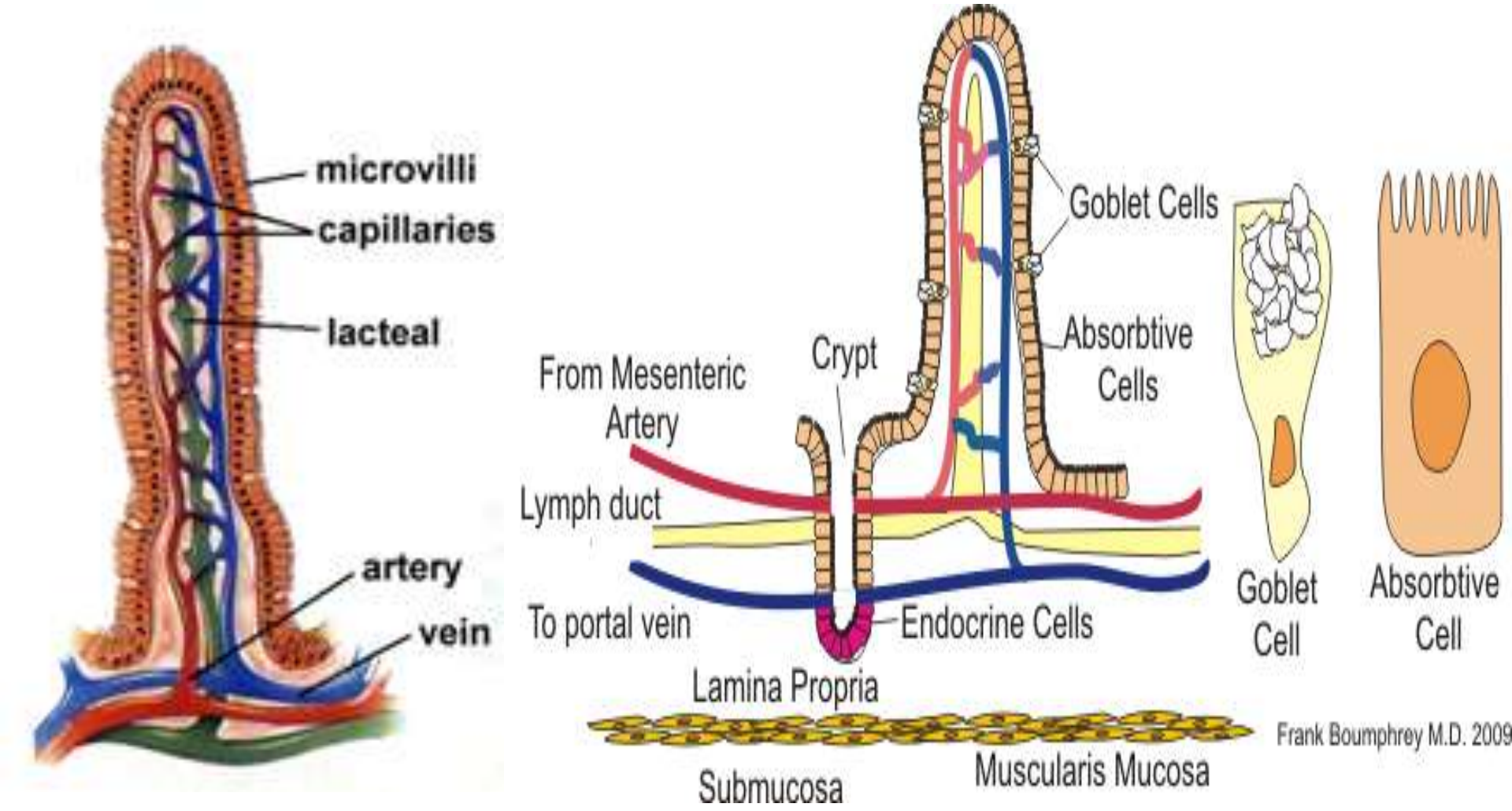
- Releases hormones of insulin and glucagon - these control levels of sugar in the blood.


liver
gall bladder
duodenum
pancreas

SMALL INTESTINES



- Final breakdown of foods happens.
- Most of the food is then absorbed into the blood to be transported across the body. (Fats go into lymph vessels.)
- To make the surface-area larger for absorption, the inside surface of the intestine is lined with *villi.*
- These *villi* have the blood capillaries and lymph vessels in them. Mitochondria are here too, because these small food particles are actively taken into blood and lymph for transport.

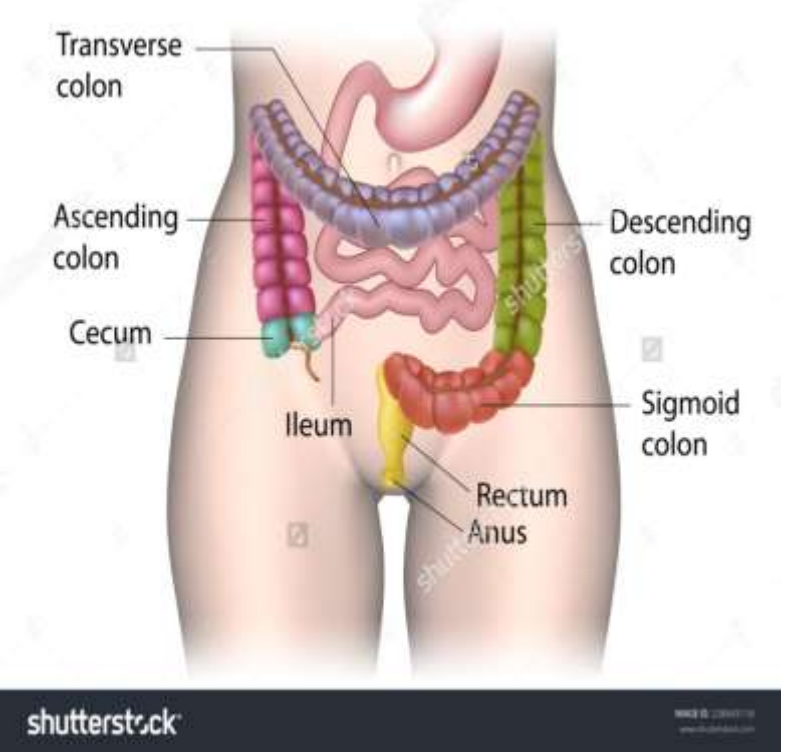


VILLUS STRUCTURE

SINGLE LAYER OF CELLS – EASY MOVEMENT.

GOBLET CELLS – MUCUS to PROTECT and ABSORB.

BRÜNNERS GLAND – ALKALINE MUCUS to NEUTRALISE & LUBRICATE.



LARGE INTESTINES

- ***Caecum*** – start of the large intestine, which joins with the ileum of the small intestine. Appendix is attached here.

- ***Colon*** **ascends**, goes **transversely**, then **descends**. Water is absorbed from the colon by the blood. The final breakdown of carbohydrates happens here – methane and CO_2 (from this) result in your farts.
- ***Rectum*** prepares the faeces for exit from your anus.