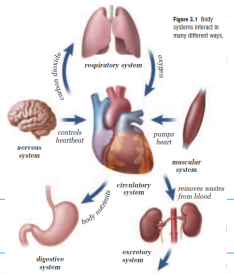
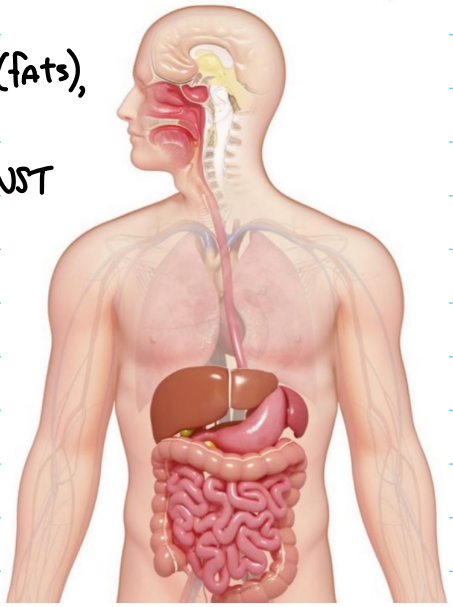
DIGESTIVE SYSTEM



- WE OBTAIN ENERGY FROM DIFF. SOURCES
  - → CARBOHYDRATES (SUGARS & STARCHES), LIPIDS (FATS), AND PROTEIN.
- BEFORE WE CAN USE THE ENERGY, WE MUST PROCESS THE FOOD THROUGH THE DIGESTIVE SYSTEM
  - → ONE LONG TUBE



THERE ARE 2 TYPES of DIGESTION

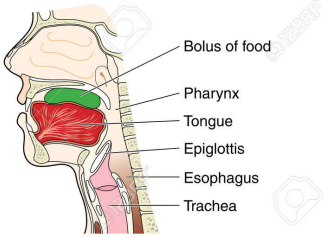
1. MECHANICAL DIGESTION → THE PHYSICAL BREAKDOWN of food into VERY SMALL PIECES.
2. CHEMICAL DIGESTION → BREAKING LARGER PARTICLES DOWN into SMALLER PARTICLES USING ENZYMES

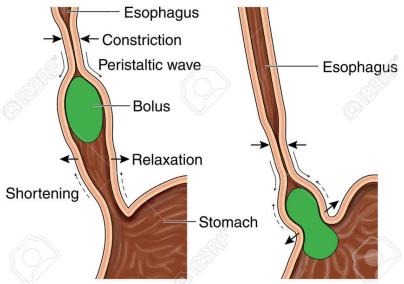
THESE DIGESTIONS HAPPEN in SEVERAL PLACES THROUGHOUT THE DIGESTIVE SYSTEM

1 INGESTION

→ FOOD into YOUR FACEHOLE

- MECHANICAL DIGESTION (TEETH GRINDING/SHREDDING YOUR FOOD
- MIXES W/ SALIVA
  - contains H_2O to moisten food & make easier to swallow
  - ALSO HAS ENZYMES called SALIVARY AMYLASE to HELP CHEMICALLY DIGEST FOOD.





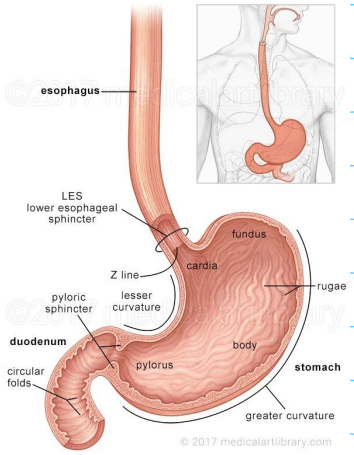
2 PROPULSION

→ ONCE YOU SWALLOW, THE TONGUE PUSHES IT TO THE BACK of YOUR THROAT

→ A FLAP of SKIN (THE EPIGLOTTIS) MOVES ACROSS YOUR WINDPIPE AND FOOD is FUNNELED into YOUR ESOPHAGUS

→ FOOD is THEN MOVED TOWARDS STOMACH W/ MUSCLE CONTRACTIONS CALLED PERISTALSIS (WAVE LIKE MOVEMENTS)

3 CHEMICAL DIGESTION



IN YOUR STOMACH...

- IT CHURNS BY CONTRACTING THE MUSCULAR WALLS BACK & FORTH, MIXING IT WITH SECRETIONS FROM WALLS KNOWN AS GASTRIC JUICE

CONTAINS HYDROCHLORIC ACID, WATER, & DIGESTIVE ENZYMES & MUCUS

HELP CHEMICALLY DIGEST THE FOOD

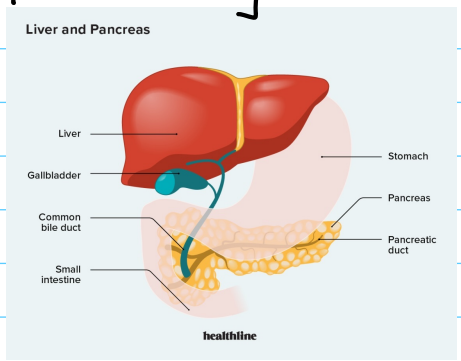
STOPS G. JUICE FROM DIGESTING ITSELF

FOOD IS NOW RELEASED, AS A LIQUID, SLOWLY INTO SMALL INTESTINE

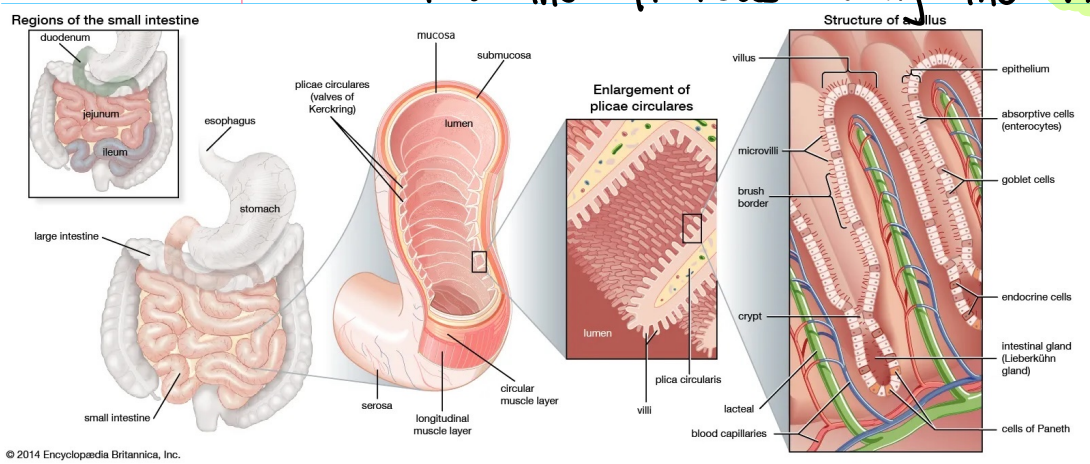
4 ABSORPTION

[SMALL INTESTINE, LIVER, PANCREAS, GALLBLADDER]

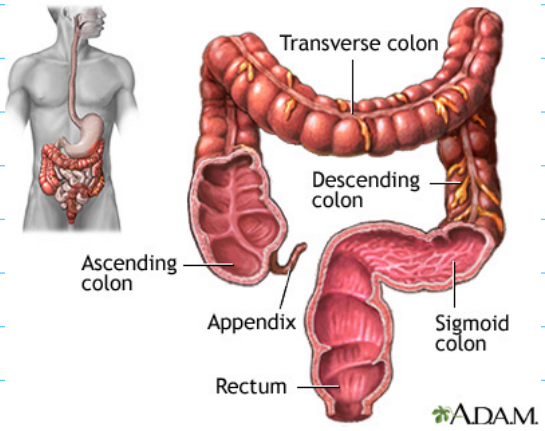
- IN SM. INTESTINE, CHEM DIGESTION CONTINUES
- THE PANCREAS SENDS DIGESTIVE ENZYMES to BREAKDOWN STARCHES & PROTEINS
- THE LIVER PRODUCES BILE, STORED IN THE GALL BLADDER.
  - USED to BREAKDOWN LIPIDS (FATS)



- W/ the FOOD NOW IN SMALLER PIECES, the SMALL INTESTINE ABSORBS the PARTICLES USING the Villi
  - SMALL, FINGER-LIKE PIECES THAT INCREASE the SURFACE AREA of INTESTINE
  - MADE of BLOOD VESSELS SO NUTRIENTS ARE ABSORBED DIRECTLY INTO BLOODSTREAM



5 DEFECATION

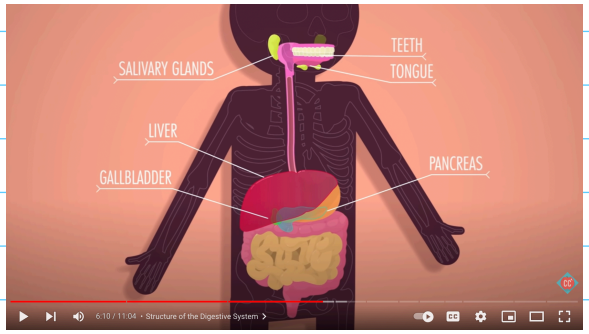


- WHEN "food" REACHES LARGE INTESTINE, CHEMICAL & MECHANICAL DIGESTION IS COMPLETE.

- IN HUMANS, THE LARGE INTESTINE:
  - → ABSORBS WATER & SOME VITAMINS & MINERALS
  - → ANY FOOD REMAINING IS FORMED INTO FECES 💩 → COLLECTED IN RECTUM

Digestive Disorders (12)

Anorectal Fistula	Intestinal Fistulas	Small Intestine
Colonoscopy	Large Intestine	Small Intestine: Full-Thickness Section
Crohn Disease	Peptic Ulcers	Stomach
Digestive System	Sliding Hiatus Hernia	Ulcerative Colitis



WANT TO WATCH? CHECK OUT THE CRASH COURSE VIDEO HERE