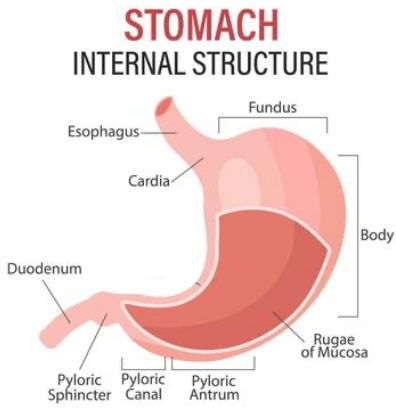


gastric, motility, and vomiting

Anatomy of stomach

Slide 3

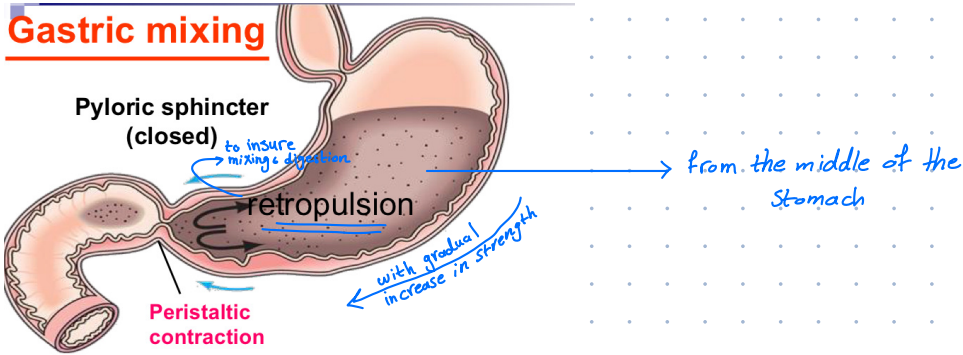


Stomach is classified according to its function; proximal motor unit, and distal motor unit

Tone: basal continual discharge

Anti-peristalsis → for proper mixing proper digestion

The mixture of food bolus with saliva ,HCL, digestive enzymes in the mouth is called **chyme**



Slide 6&7&8

Vagal nucleus is located in the medulla oblongata

Human can survive from 2 to 3 months without food (depending on muscle bulk)

Gastrin is secreted from G cells which located in the mucosal lining of the stomach

Secretin is hormone released from duodenal cells

Parasympathetic

Vagal → (proximal unit) stimulate fibers in Myenteric plexus → Myenteric plexus release chemical transmitter called purinergic fiber, also VIP may be released in this step → relaxation of proximal unit

Vagal → (distal unit) stimulate cholinergic fibers (direct from vagus, or indirect through Myenteric nerve plexus) → acetylcholine releasing → contraction of distal unit

Slide 11

Sympathetic

Relaxation of fall and contraction of the sphincter by noradrenaline

Myenteric plexus:

Excitatory, especially in the distal unit

Vomiting is controlled by vomiting center in the medulla oblongata and mediated by cranial nerves V, VII, IX, X & XII and spinal nerves to diaphragm (phrenic nerve (from the anterior horn of C3, C4 and C5)) and motor nerve of abdominal muscles.

Slide 15

Semicircular canal: is small apparatus of vestibular system in the inner ear maintain posture and equilibrium. When it abnormally stimulated induce vomiting & dizziness

Retching: intermittent contraction of abdominal & diaphragm muscle (contraction-relaxation-contraction-relaxation)

Wall of stomach is (completely relaxed)

L.E.S, and diaphragmatic opening is also contracted.

Slide 20

Repeated vomiting will cause dehydration if the patient doesn't have IV or fluid replacement

Slide 23

alkalemia ⇒  PH in blood

why??

while losing acidity. stomach needs acid for digestion so resynthesize of acid occurs
* for synthesizing acid in stomach (bicarbonate) is repelled to the blood (alkaline tide)
So alkalemia happens