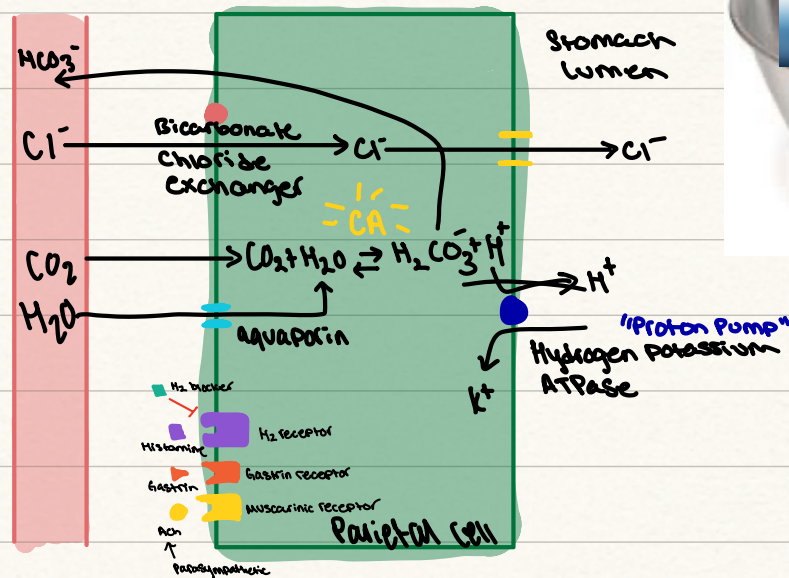


Gastric Phase

Parietal cells making HCl

* Ingredients



H₂O
CO₂
Cl⁻

1. H⁺ is formed by the breakdown of H₂O into OH⁻ plus H⁺, and the formation of HCO₃⁻ by carbonic anhydrase
2. H⁺ is pumped into the lumen by H⁺/K⁺ ATPase (proton pump)
3. Cl⁻ is pumped from the blood into the cell in exchange for bicarbonate which enters the bloodstream
4. Cl⁻ passes into the lumen via Cl⁻ channels

Gastric Secretion

* Occurs in the lumen of the stomach
mucosa has openings called gastric pits
These pits branch into gastric glands

Exocrine cells (3) - all secretions = gastric juice

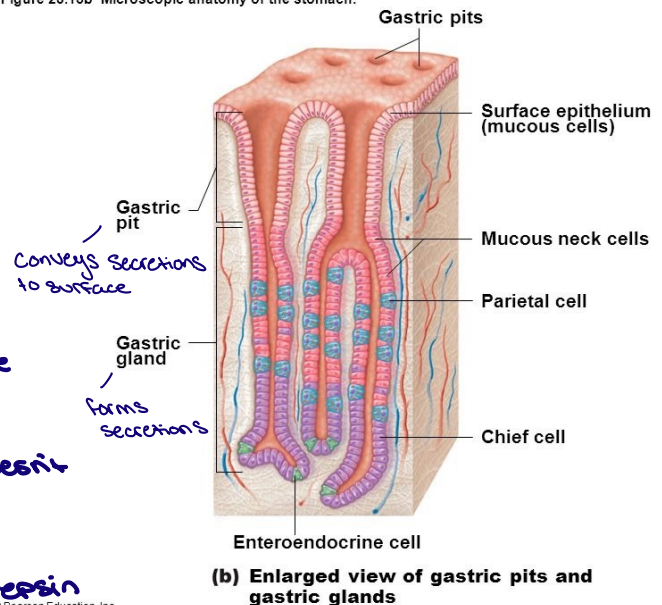
Mucous neck cells - secrete mucus

Chief cells - secrete pepsinogen
Inactive form so the cell doesn't get digested!

Parietal cells - secrete HCl → converts pepsinogen to pepsin

* All secretions go to stomach lumen
Intrinsic factor binds to B₁₂ helps w/ absorption

Figure 23.15b Microscopic anatomy of the stomach.



Endocrine cell (1)

Enteroendocrine cells "G" cells - secrete hormone (gastrin) into the blood vessels of the lamina propria that targets the gastric glands and stimulates secretion of gastric juice