

GASTRIC JUICE

Composition

0.5% Solid — [Inorganic
99.5% Water Organic

Intro

- Acidic In Nature
- 1200 ml/day to 1500 ml/day.

①

Digestive function =) Enzyme Based.

- Mainly acts on Protein. [Renin & Pepsin]
- other Enzymes
 - Gastric lipase.
 - Urease.
 - Gastric amylase.

① PEPSIN

- Secreted as Pepsinogen [Inactivated form].
- Active form (PEPSIN) by HCL.
- Converts, Protein →

② Gastric lipase

- Weak as compared to Pancreatic lipase.

Peptones.
Protease.
Polypeptides.

Butter → fats + Glycerol

- Becomes Inactive at Ph below 2.5



③ **Gelatinase**

→ Gelatin

www.FirstRanker.com →

Peptides

www.FirstRanker.com

Collagen

④ **UREASE**

→ Urea → Ammonia

⑤ **Gastric amylase**

→ degrades Starch

⑥ **Rennin**

→ Curdles MILK.

②

HEMOPOLITIC function

— Castle Intrinsic factor released by gastric glands.

★ Very Important for absorption of Vitamin B₁₂ [Extrinsic factor].

— Vitamin B₁₂ is Very Important for Erythropoiesis.

∴ defect in it's absorption

causes ⇒ **PERNICIOUS ANEMIA.**



Mucus

Secreted from Neck cells of Gastric Glands has 3 functi.

- + i) Prevents Stomach from Mechanical Injury.
- + ii) — from Acidic HCl.
- + iii) — digestive action of Pepsin.

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HCl

- + i) kills harmful pathogen
- + ii) Required for Activation of various Enzymes.
eg) Pepsinogen $\rightarrow$ Pepsin.

#) REGULATION

=> factor stimulating

- + SOMATOSTATIN
- + HISTAMINE
- + ACETYLCHOLINE

CEPHALIC PHASE: Only nervous

Conditioned reflex

Sight, smell, thought of and hearing about food

Unconditioned reflex

Presence of food in mouth

Stimulation
Vagus nerve

Secretion of gastric juice

GASTRIC PHASE: Nervous and hormonal

Bolus in stomach

Vagus nerve
Local nerves
Gastrin

Stimulation

Secretion of gastric juice

INTESTINAL PHASE: Mostly hormonal

Chyme in intestine

Gastrin

Stimulation

Secretion of gastric juice

Secretin
CCK-PZ
Somatostatin
GIP

Inhibition