

Chapter 16

DIGESTIVE SYSTEM

Small Intestine:

- Duodenum food mix with Bile juice and pancreatic juice
- Bile salts emulsify fat substances [Enzymes absent]
- Fats are largely digested [Bile salts]

Emulsification:

- Break down fat droplets in small pieces
- Fat emulsified
- Lipase action on fats
- Pancreas produce **Co Lipase** enzyme separates the **Salts** and **Emulsified Fats**.

➤ Pancreatic juice:

Pro enzymes of pancreatic juice activated by

Enterokinase present in **Succus Entericus**.

- Pancreatic juice digest all 3 – types of food material.

Succus Entericus:

- Intestinal fluid that secreted in small quantity in small Intestine.
- Completed Digested food which is alkaline and in the form of Liquid emulsification – CHYLE.

Mechanism In Duodenum and Jejunum

Trypsin – Autolytic

Trypsinogen $\xrightarrow{\text{Enterokinase / Trypsin}}$ Trypsin

Chymo Trypsinogen $\xrightarrow{\text{Trypsin}}$ chymo trypsin

Proteins $\xrightarrow{\text{Trypsin / Chymo trypsin}}$ Peptides

Peptides $\xrightarrow{\text{Carboxy peptidase}}$ Tripeptides and Dipeptides

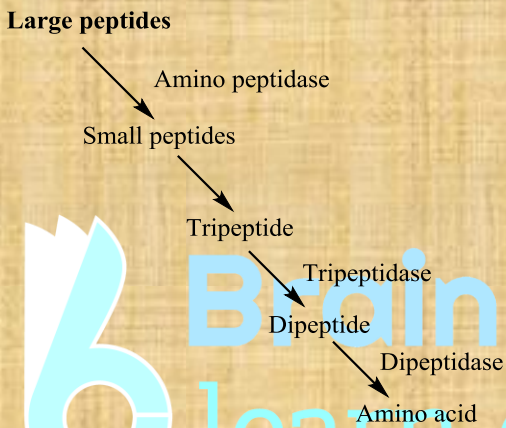
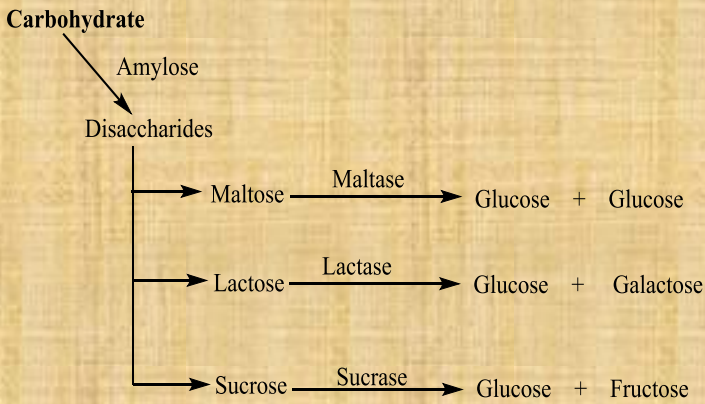
Carbohydrates $\xrightarrow{\text{Amylase}}$ Disaccharides

Emulsified Fats $\xrightarrow{\text{Lipase}}$ Fatty acid and Glycerol

DNA $\xrightarrow{\text{Deoxyribonuclease}}$ Deoxyribo Nucleotides

RNA $\xrightarrow{\text{Ribonuclease}}$ Ribo Nucleotides

Mechanism In Ileum:



FATS $\xrightarrow{\text{Lipase}}$ Fatty acid and Glycerol