

	Brown Rice, Steamed carrots, Milk		
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DIGESTION: (Chemical digestion)

Most of the chemical digestion take place in the small intestine, which is “a highly convoluted tube in the digestive system that absorbs about 90% of the nutrients from the food we eat” (Taylor, 2010)

about 20 feet long approximately 1 inch wide. The lining of the small intestine has protective mucus, in order to prevent it from digesting itself just like the stomach.

It is divided into three parts : duodenum, jejunum and ileum.

Duodenum

The duodenum is “ a 10-inch long C-shaped tube found around the head of the pancreas” (Schmidler, 2015)

The food that has become almost a liquid (chyme) due to the churning movements is released into the first part of the small intestine. Here pancreatic and liver juices (bile) are poured into it which will start the digestion of lipids while continuing the digestion of carbohydrates and proteins. Absorption of calcium, iron and magnesium takes place here before the food passes down the jejunum.

- **Amylase** will further break down **starch into maltose**
- Bile and **Lipase** will break down **lipids into glycerol and fatty acids** Bile will neutralise the acids of the food to maintain optimum alkaline conditions that allow the enzymes to work effectively
- **Trypsin** will break down **proteins into peptides**.

Part of Digestive system	Food digested	Enzyme responsible	Chemical Reaction
Duodenum	Apple, Whole Wheat roll, Brown Rice, Steamed carrots	Amylase (from the pancreas)	Starch to Maltose
Duodenum	Chicken, Apple, Whole-Wheat roll,	Trypsin (from the pancreas)	Proteins to Peptides