

**What is the digestive system**

Digesting food is a long process as it goes from your mouth to your rectum. The digestive system has two parts, the **mechanical digestion** (chewing your food) and the **chemical digestion** (breaking the food into smaller molecules using enzymes in saliva and stomach). The nutrients from the food are absorbed in to the blood stream via the small intestine. The food part which is not absorbed continues to the large intestine, and is later excreted through the rectum.

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**My 841.7 calories meal**

Ingredients	Ingredients
Egg whites	Skimmed Milk
Whole granola	Flaxseed
Apple	Vanilla
Cocoa	Chopped walnuts
Flaxseed oil	Maple Syrup
Blueberries	Banana
Water	White granola powder

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**BREAKFAST!!!**

841.7 calories

Estimated \$4.06

**Cumulative stats:**  
 126.2g Carbs  
 27% Fat  
 21.9g Fat  
 62.9g Protein  
 841.7 Calories

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**Most important enzyme in your digestive system**

**Amylase**- This enzyme breaks down the carbohydrate and turn it into simple sugar or glucose. It is used in mouth and the small intestine.

**Lipase**- This enzyme breaks down the fat in your food. It is used in the stomach and the small intestine.

**Trypsin**- This enzyme breaks down the protein. It is used in the stomach and the small intestine.

**Glucose:** The glucose provides the body with the energy its need. It is formed by the break down of carbohydrates in the digestive tract.

**Amino acids:** They are all the building blocks of all biological protein.

**Fatty acids:** They are long chains of hydro-carbons formed by break down of fat. They help in energy storage in the body by combining to form fat.

**Fiber:** It is the indigestible portion of food derived from plants. There are 2 types of fibers: Insoluble fiber and Soluble fiber. Insoluble fiber helps in the movement of food down the digestive tract.

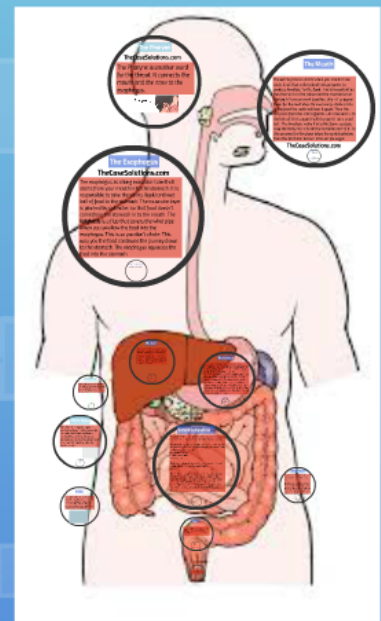
**Absorbers:** It is the process by which nutrients are absorbed in to the blood stream mostly through the wall of small intestine.

**Water:** Water helps lubricate the movement of food in the digestive tract. Water helps remove toxins from the body.

**Bibliography**

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4383632/>  
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# Unilever Foodsolutions Journey (B):Reality Sets In

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**My 841.7 calories meal**

Ingredients	Ingredients
Egg whites	Skimmed Milk
Whole granola	Flaxseed
Apple	Almond
Cocoa	Chia seeds
Flaxseed oil	Dark brown sugar
Maple Syrup	Vanilla
Water	Other powder

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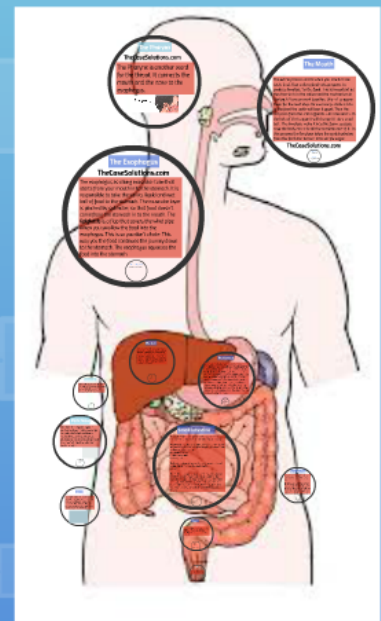
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# My 841.7 calories meal

This is a proper meal because it has a balanced amount of Macro-nutrients in it and is also rich in micro nutrients.



## Blubbery oatmeal

### Ingredients

Egg white  
Whey protein powder  
Cocoa  
Flaxseed oil  
Blueberries,  
Water  
Oatmeal

Whey protein powder is a rich source of protein.

Egg white is high in protein.

Cocoa powder is high in carbohydrate.

Flaxseed oil is high in fat

Blueberry is rich in micro nutrients like tannins, anthocyanins.

Oats are rich in carbohydrate and protein. Oats also contain minerals and fiber.

## Fruit yogurt smoothie

### Ingredients

Nonfat Milk  
Flaxseed  
Honey  
Strawberries  
Nonfat yogurt  
Banana  
Whey protein powder



Bananas are rich in carbohydrates, potassium and vitamins C & B6.

Strawberries are rich in folate, potassium and vitamin C.

Honey is a rich source of energy.

Whey protein powder is a rich source of protein.

Flaxseed is a rich source of omega acids (fatty acids).





Nonfat yogurt is a good source of protein and carbohydrates.

Nonfat Milk is a good source of protein, carbohydrates and calcium.

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# BREAKFAST!!!

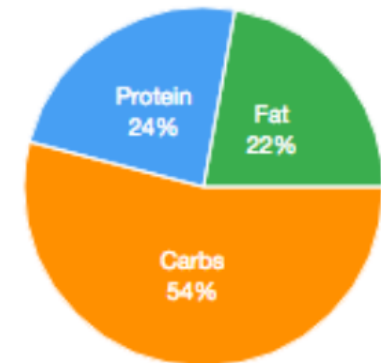
841.7 calories

	Fruit yogurt smoothie	3/4 shake	
	Blueberry Oatmeal	1 Serve	

Estimated \$4.08

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Percent calories from...



### Cumulative stats:

120.2g Carbs  
(102g net carbs)  
21.9g Fat  
52.9g Protein  
841.7 Calories

# The digestive system process

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# The Mouth

The whole process starts when you smell or see tasty food. Your saliva gland gets prepared to produce Amylase for the food. This is important as the chemicals in the saliva and the mechanism in the teeth/ tongue work together, this will prepare them for the next step. As soon as you take a bite of the food the teeth will tear it apart. Then the enzymes from the saliva glands will come and with the help of the tongue it will change it into a small ball. The Amylase make it into this form because now the body can take all the nutrients out of it. In this process the Amylase takes the carbohydrates from the food and turns it in to simple sugar.

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#### Chemical Digestion

-Amylase breaking down the carbohydrates

#### Mechanical Digestion

-Chewing the food with the teeth  
-Swallowing the food

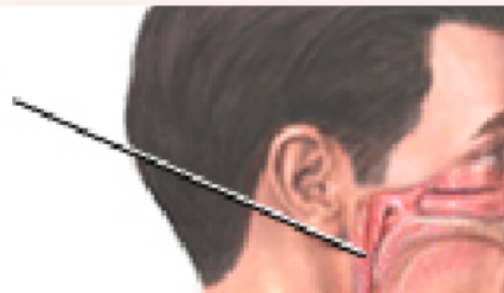


# The Pharynx

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The Pharynx is another word for the throat. It connects the mouth and the nose to the esophagus.

Pharynx





# The Esophagus

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The esophagus, is a long muscular tube that starts from your mouth in to the stomach. It is responsible to take the saliva, liquid and wet ball of food to the stomach. The muscular layer is pinched by sphincter, so that food doesn't come from the stomach in to the mouth. The **Epiglottis** is a flap that covers the wind pipe when you swallow the food into the esophagus. This is so you don't choke. This way you the food continues the journey down to the stomach. The esophagus squeezes the food into the stomach.

Mechanical Digestion

Squeezing the food into the stomach