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DIGESTIVE PROCESS OF THE FOOD MISS AMANDA EGBE ATE AT MR SOLOMON'S PARTY

1. FRIED RICE

Ingredients:

- White Rice – starch
- Vegetables - nucleic acids
- Egg- protein
- Vegetable Sauce – fat

The Mouth

Your mouth receives the food, chews it as your saliva moistens it. The next natural effect is for you to digest the food when you swallow it down to your esophagus. Mechanical digestion of breaking apart the food. Chemical digestion of breaking down larger molecules into smaller ones with enzymes and other chemicals.

Esophagus

As the food goes down the esophagus it has a protective layer called the epithelial layer. It prevents sharp foods from scapping the esophagus. Food then reaches the end of the esophagus and arrives at the cardiac sphincter connecting to the stomach.

Calcium: 4%

Iron: 14%

Fat: 33%

Carbs: 52%

Protein: 15%

Stomach

Calories: 329

Total Fat: 11.96g

-Saturated: 2.44g

-Polyunsaturated: 3.37g
-Monounsaturated: 5.02g
Cholesterol: 105mg
Sodium: 598mg
Potassium: 248mg
Total Carbohydrates: 41.82g
-Dietary Fiber: 1.4
-Sugar: 1.3g
Protein: 12.45g
Vitamin A: 6%
Vitamin C: 5%

In the stomach there is an acid called Pepsin which breaks down food into smaller peptides. This kills bacteria in food, after 2-6 hours the food has been turned into a semi-liquid food, called Acid Chyme. The chyme then leaves the stomach for the small intestine.

Small Intestine

The small intestines have epithelial cells that increase their absorption along the walls in the intestine. Then divides into 3 zones, the Duodenum, where the liver and pancreas break down fats and peptides. Then to this Jejunum that is lined with specialized for the absorptions of small nutrients from the Duodenum. After it goes to the Ileum, to mainly absorb vitamin B12 and bile salts.

Large Intestine

Consist of the colon and the anus, opening the rectum to the anus which absorbs water, salts, and some vitamins. The walls of the colon absorb water, vitamins and minerals from the liquid mixture that traveled through the descending colon. The muscles then move the watery waste and slowly absorb all the excess water.

The muscles contract and move the waste until it is expelled into the rectum which opens the anus where the waste is eliminated. The warmth of the colon causes an enormous number of bacteria to be made. These bacteria are useful because the large intestine absorbs Vitamin K from the waste.

2. FRIED CHICKEN

Fried chicken contains:

- Lipids
- Carbohydrates
- Protein

In her mouth, her teeth mechanically digested the lipids, carbohydrates, and proteins, and her salivary glands secreted salivary amylase which broke the carbohydrates into simple sugars.

The chicken, now mashed up, moved to the stomach where pepsin is produced. Pepsin is an enzyme that changes proteins into amino acids in the stomach.

In the small intestine, the lipase, trypsin, and pancreatic amylase that were produced in the pancreas actually do the breaking down of her food.

The liver produces bile which is not an enzyme, but it aids in digestion by breaking lipids down to smaller lipids (mechanically) which allow the lipase to have more surface area to react on.

The gallbladder stores the bile that the liver produces

The pancreas produces Lipase, to break lipids down to fatty acids and glycerol, pancreatic amylase to break carbohydrates into simple sugars, and trypsin to break proteins down to amino acids.

3. SALAD

After water, carbohydrate is the most abundant nutrient in salads, although it makes up less than 3 percent of the salad's weight. About half of the salad's carbohydrate is in the form of dietary fiber. As you chew salad, salivary enzymes begin the process of breaking down its digestible carbohydrates into smaller sugar units. This process continues with the help of pancreatic enzymes once the partially digested salad carbohydrates reach your small intestine. When the carbohydrates are fully digested into glucose molecules, your small intestine then absorbs the glucose. The indigestible fiber portion of the salad continues on to your large intestine, where you eventually excrete it in your feces.

4. WATER

Mouth

The first big step the body takes is registering hydration through your mouth. After a few gulps of water, the brain will convince the body– that the body has had enough to drink.

This is an important hydration mechanism because it takes a long time for the water that was drunk to reach cells and provide them with sufficient hydration. If the brain registered hydration only after cells received water, people would be drinking way more than the body really needs.

The communication between the brain and mouth allows someone to stop drinking at the appropriate time, even if the water hasn't fully hydrated the system yet.

Esophagus

It is a small pipe connected to the mouth and lands in the stomach. This is where the process of water absorption to the bloodstream begins.

Stomach

The amount of water absorbed in the stomach and how quickly water is absorbed depends, in part, on how much has been eaten. If someone is drinking water on an empty stomach, they are more likely to experience a faster rate of water absorption.

Whereas, if a person has eaten a lot of food before they drink water, the speed of absorption will slow down accordingly, and absorption could take up to a few hours.

Small Intestine

The small intestine, at around 20 feet long, efficiently absorbs water into the cell membrane and bloodstream. From here, water will travel to cells across the body, providing them with the hydration to perform daily functions efficiently.

But the journey of the water you drink doesn't stop there. Once absorbed into the body, water aids some vital functions.

Large Intestine

The large intestine is the key center for water reabsorption rather than the stomach and the small intestine because of the following reasons:

It prevents most of the paracellular flow of water and electrolytes because of tight junctions, unlike in the small intestine. This prevents the backflow of electrolytes and water from the chyle to the blood.

It is mainly involved in concentrating the fecal matter, so reabsorption of water and electrolytes becomes its main function.

Kidney

One such task is filtering toxins. This is primarily the job of your kidneys, but to filter toxins efficiently, kidneys require a large amount of water. If the kidney does not receive enough water, it could lead to health concerns including kidney stones and other kidney-related diseases.

Fortunately, one way the kidneys inform someone of whether they're providing their body with enough water is by concentrating the amount of water expelled through urine – thus changing the color of urine to bright yellow.

