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**Fried rice** - carbohydrate

**Salad** - minerals and vitamins

**Fried chicken** - protein and oil

**Water** - water

Below are the various classes of food eaten by miss Amanda at Mr. Solomon's party:

**Fried rice;**

Carbohydrate digestion begins in the mouth. The salivary glands in the mouth secrete saliva, which helps to moisten the food. The food is then chewed while the salivary glands also release the enzyme salivary amylase, which begins the process of breaking down the polysaccharides in the carbohydrate food.

**In the Stomach**

After the carbohydrate food is chewed into smaller pieces and

mixed with salivary amylase and other salivary juices, it is swallowed and passed through the esophagus. The mixture enters the stomach where it is known as chyme. There is no further digestion of chyme, as the stomach produces acid which destroys bacteria in the food and stops the action of the salivary amylase.

### the Pancreas and Small Intestine

After being in the stomach, the chyme enters the beginning portion of the small intestine, or the duodenum. In response to chyme being in the duodenum, the pancreas releases the enzyme pancreatic amylase, which breaks the polysaccharide down into a disaccharide, a chain of only two sugars linked together. The small intestine then produces enzymes called lactase, sucrase and maltase, which break down the disaccharides into monosaccharides. The monosaccharides are single sugars that are then absorbed in the small intestine.

### In the Large Intestine (Colon)

Carbohydrates that were not digested and absorbed by the small intestine reach the colon where they are partly broken down by intestinal bacteria. Fiber, which cannot be digested like other carbohydrates, is excreted with feces or partly digested by the intestinal bacteria.

## Salad:

Digestion of vitamins and minerals begins in your mouth, when you chew your food. When food enters the stomach, hydrochloric acid and other stomach enzymes help release its nutrients. Your pancreas helps by releasing bile that aids with digestion. From this point, the vitamins and minerals travel to the small intestine, where they are absorbed into the bloodstream. Your blood carries the nutrients to your liver, where they are used up immediately, stored for later use or sent to the kidneys for excretion through urine.

## Fried chicken:

The initial stage of protein breakdown occurs in your mouth through mastication, or what you may know better as chewing, when your teeth break apart large pieces of food to increase the surface area for easier digestion. Saliva also plays a critical role in the chewing process by acting as a lubricant to facilitate nutrient release and to trigger natural swallowing. The authors of a 2019 report in Food Chemistry speculated that the early release of nutrients sets the stage for later digestive processes.

After chewing, you swallow your food and send it to your highly acidic stomach. The acid in your stomach denatures, or unravels,

the protein matrix making it more accessible for digestion. Then, your stomach releases a special enzyme called pepsin to start breaking apart the protein string into smaller strings referred to as di- and tri-peptides, as well as amino acids for easier digestion when it reaches your small intestine.

Protein changes occur even in the stomachs of infants. In addition to a digestive role, these changes have a protective role. For example, many of the resultant compounds bolster the immune system. This early creation of protective substances happens because the location of the next stage — the small intestine — has a unique vulnerability.

### Small Intestine: Further Breakdown and Absorption

Your small intestine is responsible for two stages of protein digestion, including continued breakdown of the protein and absorption. As the protein travels down your small intestine, protein-specific enzymes from your pancreas continue to degrade the larger protein strings into di- and tri-peptides, as well as amino acids.

Then, the wall of your small intestine absorbs these nutrients and sends them to your bloodstream for transport to the various tissues of your body. The protein from your small intestine is used to restore and repair tissue, make hormones and enzymes, and serve as the building blocks for the creation of bone, muscle, skin and blood.

### Large Intestine: Clearing Waste

The final stage of protein digestion occurs in your large intestine. Here, your body absorbs electrolytes, vitamins and water and transmits the unusable waste out of your body. While it's largely recommended that you get all of the essential amino acids from the food you eat, the friendly bacteria found in your large intestine may be able to manufacture the amino acids your body needs for survival from carbohydrate substrates.

Scientists have speculated that the food processing and portion size may affect your body's response to protein, and they have discovered two protein types — fast and slow. Meat has many fast proteins that play an important role in muscle synthesis. Yet it remains unknown how cooking affects these proteins and their

digestion.

### Water:

The process of digestion starts in your mouth. Chemicals in saliva help soften your food while you're chewing it, preparing it for passage to your stomach. It's possible that drinking while you eat might dilute your saliva, but not to such an extent that it would make a difference to your overall digestive process, provided you stick with water. Water helps your salivary glands make more saliva. Conversely, alcohol or anything acidic, even foods, will dry up the saliva your glands have already produced.

Once your food reaches your stomach, if there is already liquid there, it will help dissolve your food. Ottawa West Nutrition (OWN) indicates that it's best to drink before you eat, however, because if you do it during your meal, it may dilute your stomach's gastric juices. These juices are instrumental in killing any bacteria that might be contained in the food and, with the help of the contraction of your stomach's muscles, they pulverize your food into a substance your stomach can easily push into the small intestine. Your liver also requires ample water to do its job properly. Once microscopic food particles pass from your intestines into your bloodstream, your blood will carry these nutrients to your liver. Your liver distributes them to the rest of your body. It decides what to keep for later use and what to pass on for

immediate energy, and adequate water is necessary for this process. But the process depends more on adequate hydration overall, not just the water or liquids you give your body while you're eating.