



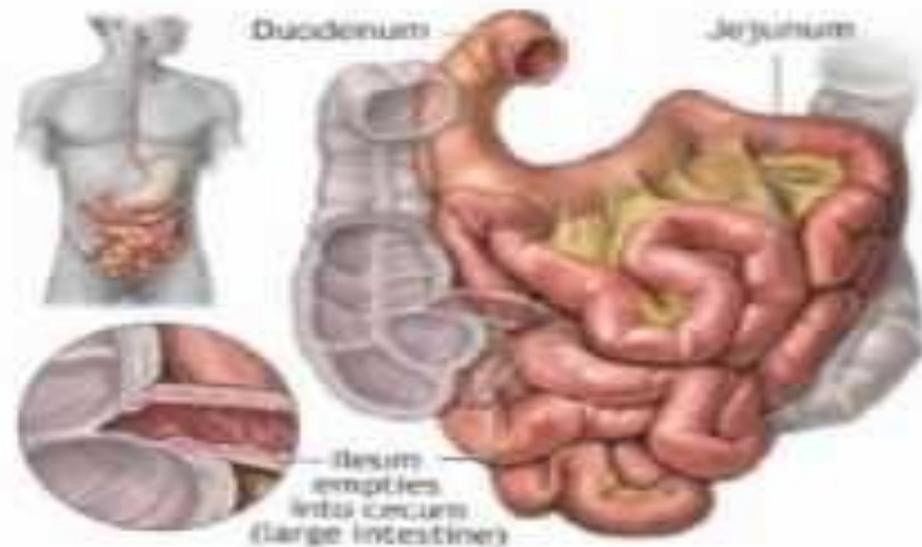
Digestive System

OBJECTIVE 7.L.I.4 ; WHAT PATHWAY DOES FOOD TAKE AND WHAT ORGANS ARE FOUND IN THE DIGESTIVE SYSTEM?

Videos

The food will move to a tube
Small intestine
Duodenum, jejunum
And ileum

Now, the juice
Is there is here
From the liver
And pancreas



Chemical Digestion

- ▶ The chemical process mixes the bolus with digestive juices released by the stomach lining cells. The food particles go through hours of digestive process passing through various stages of chemical digestion.

When initiating the chemical digestion process, the saliva secreted helps in softening the food into semi-solid lump. Salivary amylase enzyme helps in digesting the carbohydrates and mucus. This way the food particles are made finer for swallowing and chemical breakdown in the digestive track. The food thus made into semi solid lump is then pushed through the throat and esophagus, a hollow tube that connects throat and stomach.

Mechanical Digestion

- ▶ On reaching the stomach the food goes through a series of chemical and mechanical treatment. Inside the stomach mechanical digestion called peristaltic contractions helps to churn the food bolus.

Mechanical digestion is a process that begins the moment the food particles reach the mouth. The process of taking the food from mouth to the body is called ingestion. The teeth initiates the mechanical digestion by grinding the food and this process is also called as masticating.

Process of Digestion

- ▶ Digestion works by moving food through the GI tract. Digestion begins in the mouth with chewing and ends in the small intestine. As food passes through the GI tract, it mixes with digestive juices, causing large molecules of food to break down into smaller molecules. The body then absorbs these smaller molecules through the walls of the small intestine into the bloodstream, which delivers them to the rest of the body. Waste products of digestion pass through the large intestine and out of the body as a solid matter called stool.

1. Mouth

When food is chewed, saliva starts digesting carbohydrates.

2. Esophagus

Muscles, in a process called peristalsis, push the food down into your stomach.

3. Stomach

Everything is blended with digestive juices. Hydrochloric Acid kills bacteria. Enzymes break down proteins.

4. Liver

A green liquid called bile, which is stored in your liver, is secreted to break down fats.

5. Pancreas

Many kinds of digestive enzymes are made here.

6. Small Intestine

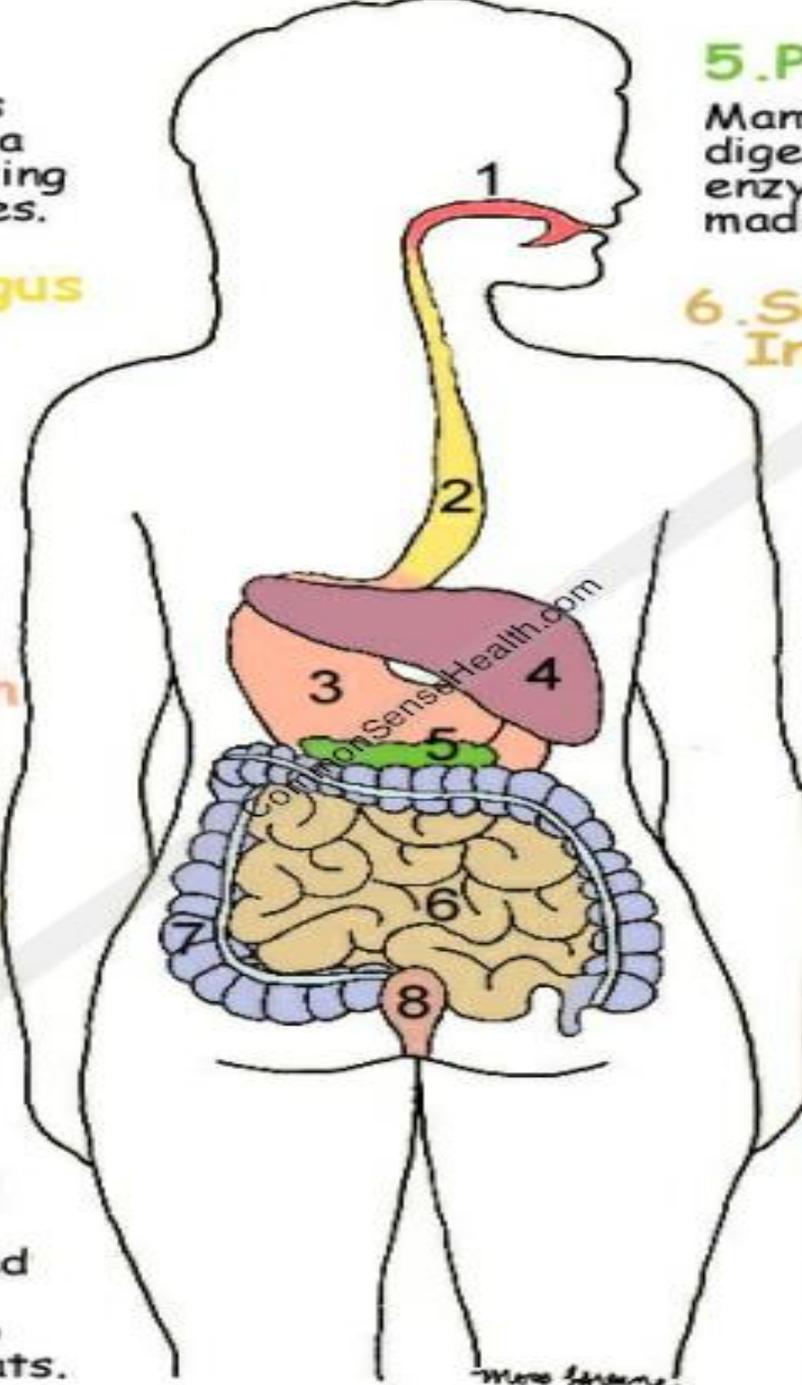
Food is mixed with bile from your liver and juices from your pancreas to be sent back to your liver for more processing.

7. Large Intestine

Indigestible food and water are processed, stored and dispersed.

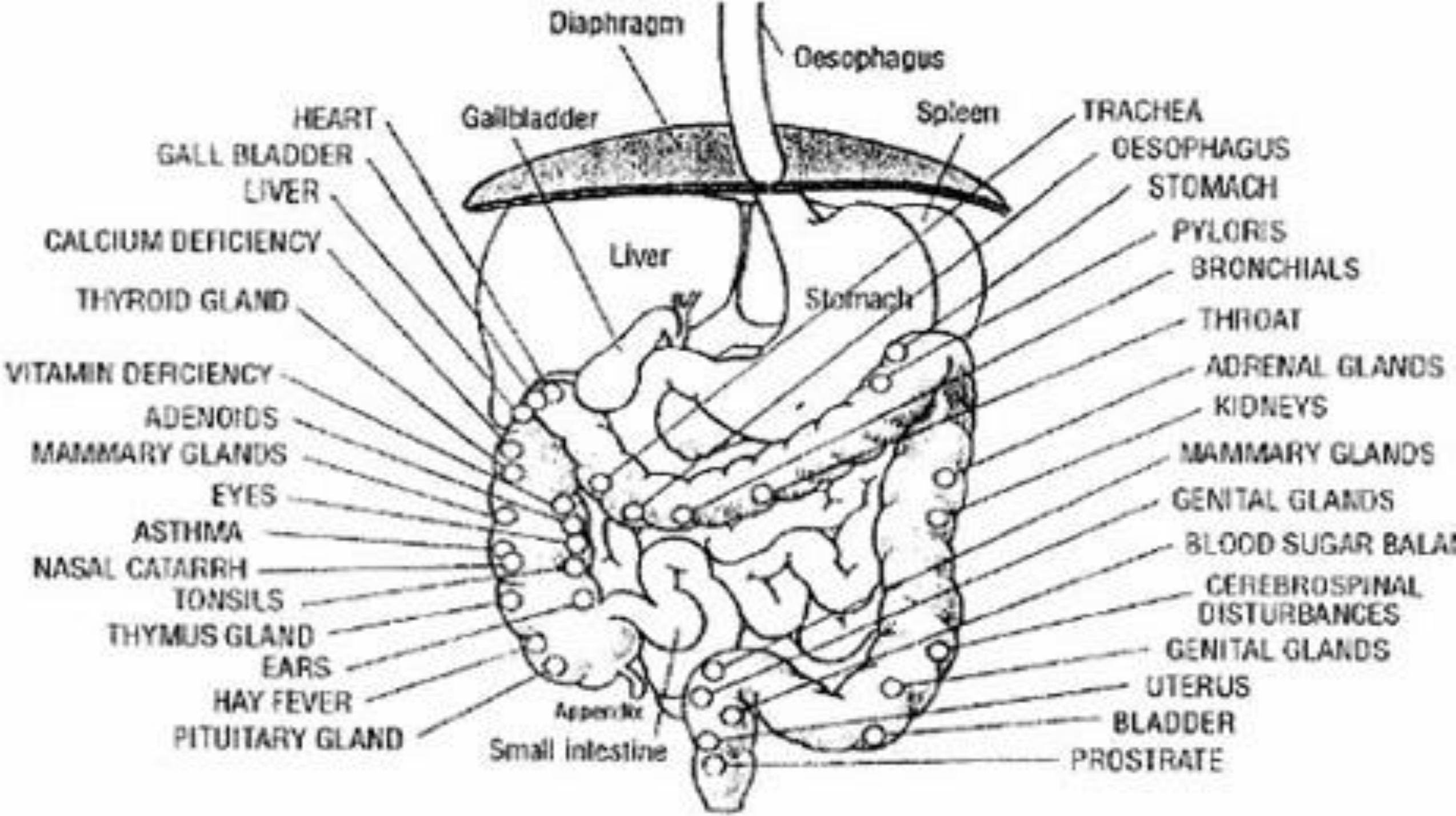
8. Anus

Solid waste passes from the rectum in order to leave your body.



Digestive System Vocabulary

- Digestion the process of breaking food down to be used by the body.
- Calorie a measurement to show how much energy a food contains.
- Nutrients the useable portions of food used for growth, repair, and replacement.
- Esophagus the tube leading from the throat to the stomach.
- Saliva liquid released in the mouth to moisten food and to begin the dissolving of food.
- Liver organ located near the stomach; makes bile which helps break fat into smaller pieces called fat droplets.



If a human Adult Stretched their digestive tract how long would it be?



Answer

15-20 meters long