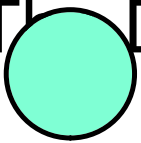


March 12, 2019

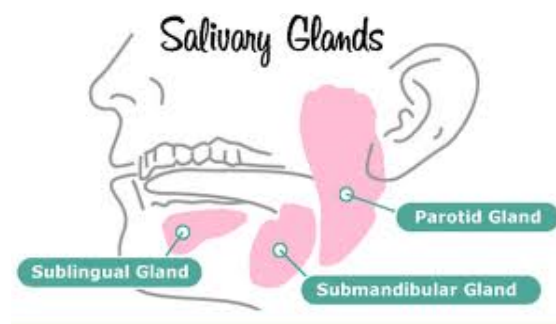
Answers pg 363 #1,2,3

The Digestive System 20-2



Warm- Up

1.7 liters of saliva is produced each day.



Think and Discuss p. 363

1. What is the function of enzymes?

Enzymes function to speed up the digestion process. Enzymes are part of the chemical digestion of food.

2. What is the difference between mechanical digestion and chemical digestion?

Mechanical digestion is the physical breakdown of food, where as chemical digestion uses chemicals like enzymes to break the food down.

3. Why must food undergo chemical digestion before it can be used by the body?

Because the particles are too large to be digested if they are not broken down first into their individual components.



"Eating the poinsettia didn't make him sick.
It was the three pounds of potting soil."

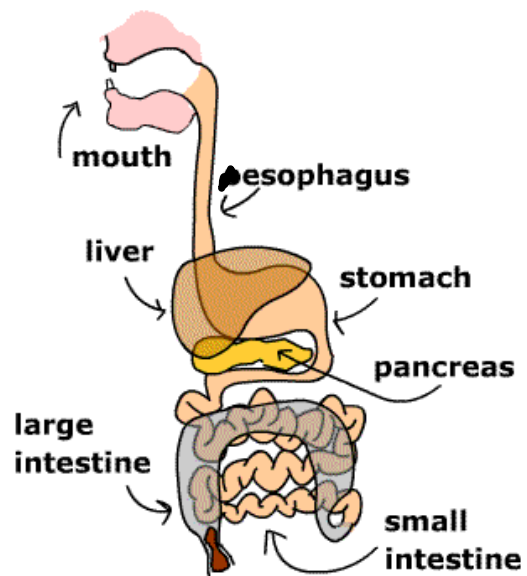
As you guessed, digestion begins in the mouth with the physical breakdown of food. Salivary glands aid by secreting enzymes.

Ingestion- Taking in of food.

Digestion- Breakdown of food.

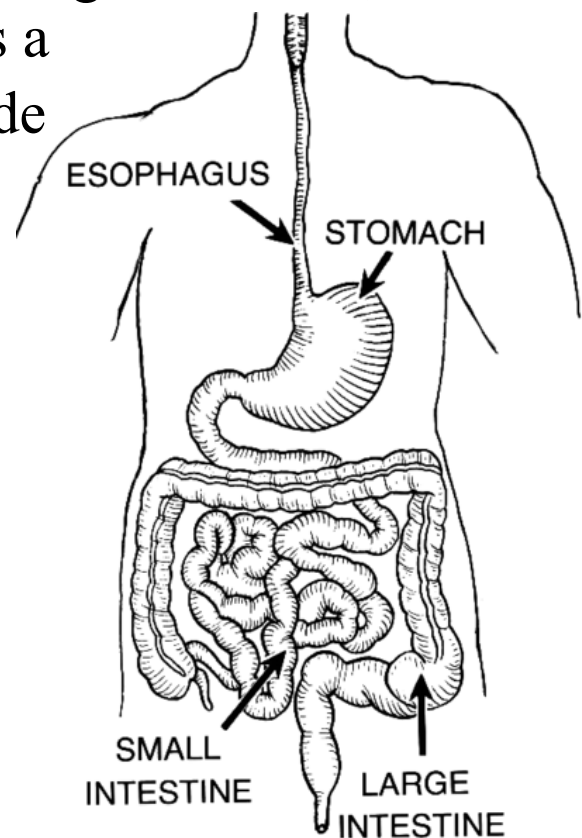
Absorption- Transport of digested nutrients to body tissues.

Egestion/Defecation- Removal of waste.



The Digestive System

- Digestion is a process in which many organs work together.
- The alimentary canal (aka digestive tract, gastrointestinal (GI) tract) is a long, tube-like structure made up of the mouth, pharynx, esophagus, stomach, small intestine, and large intestine.



Parts of the digestive system and their function

#1. The Mouth



- where food enters the digestive system

- teeth begin by grinding, cutting, tearing and crushing the food

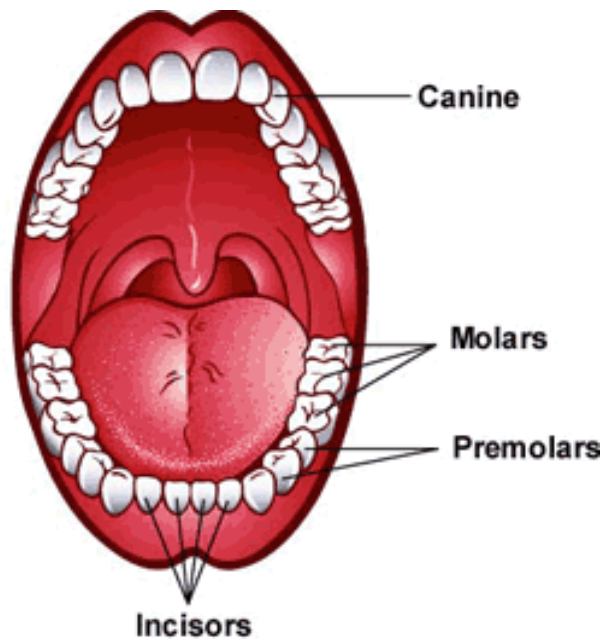
- Teeth cut, tear, grind and crush large pieces of food into smaller pieces.

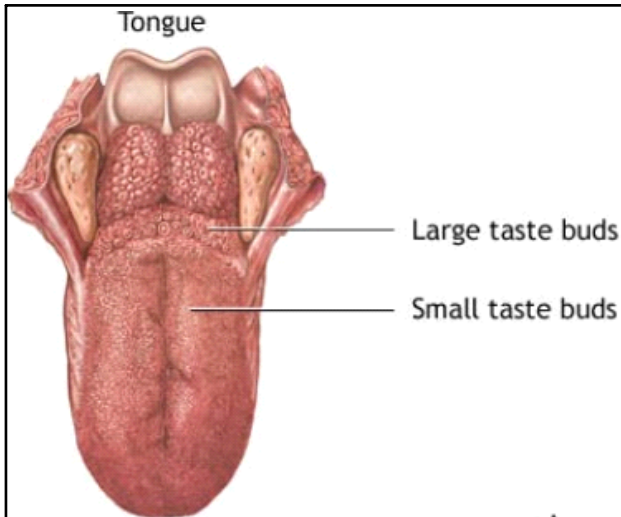
- Humans have 4 different kinds of teeth:

- 1) incisors } cut and tear food
- 2) canines }

- 3) pre-molars } grind and crush food
- 4) molars }

Handwritten initials and a small globe icon.





- the tongue moves food around in your mouth and allows it to be held by your teeth

- Saliva: softens and moistens food; begins the chemical digestion of food
- Saliva contains an enzyme that starts to break down starch into simpler forms. (salivary amylase)
- Saliva is made by three pairs of salivary glands, and passes into the mouth through tiny tubes.



**Sections of the tongue
are responsible for
taste sensations.**

**Food particles must be in a
solution before they can
penetrate the taste buds of
the tongue.**

Tastes as we know can
be sweet, sour, or salty

Umami

sphincters - a ring of muscle that guards or closes an opening or tube.



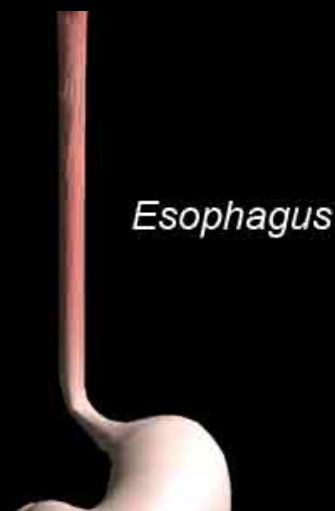
There are 6 sphincters in the digestive system.

- When food is swallowed, it enters the pharynx.
- The pharynx, or throat, is a passageway for both food and air and lies between the mouth and esophagus.

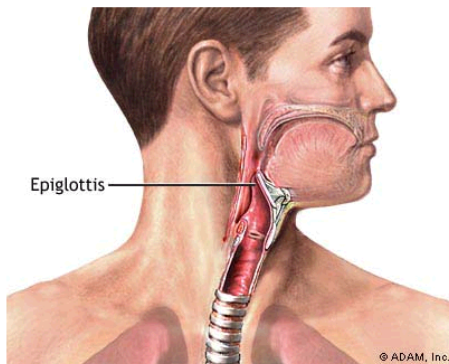
Esophagus

- a long, muscular tube connecting the mouth and the stomach

the walls are lined with cells that give off mucus (making it easier for the food to move)



Food travels from mouth to esophagus. It moves by rhythmic muscle contractions called peristalsis to the stomach.



- Gravity helps move food, but is not necessary.
- The epiglottis is a flap of tissue that covers the opening to the windpipe so that food does not enter.

