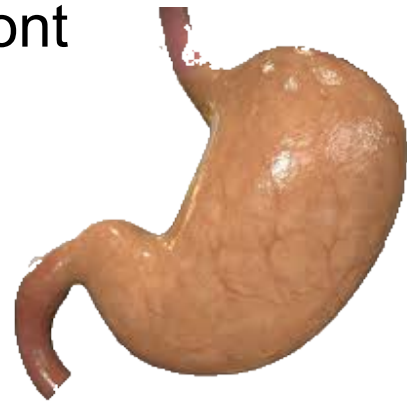


Feb 24, 2020

Digestion Mouth to Stomach cont

Warm-Up



According to the National Center for Biotechnology Information (NCBI), the human stomach is an elastic organ that can expand to hold from 0.25 to L of contents without causing any discomfort.

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



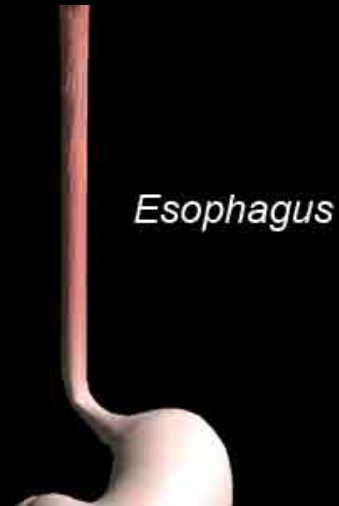
There are 6 sphincters in the digestive system.

- When food is swallowed, it enters the ^{#2}pharynx.
- The pharynx, or throat, is a passageway for both food and air and lies between the mouth and esophagus.

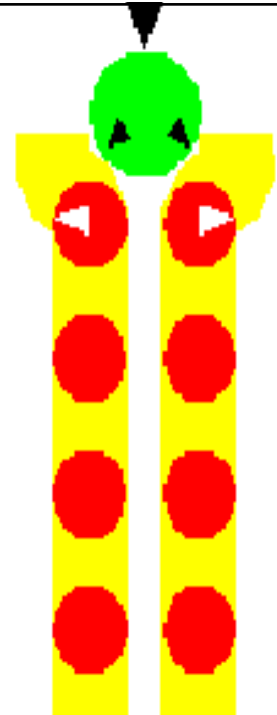
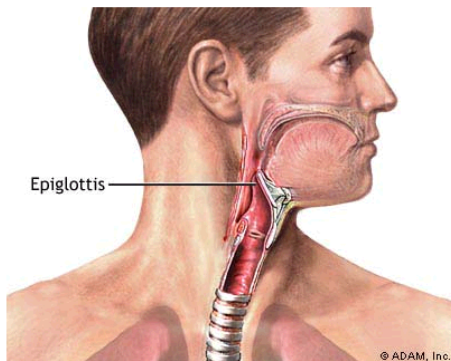
#3 Esophagus

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.

#4

**THE
STOMACH**



Both mechanical and chemical digestion take place in the stomach.

begins breaking down proteins in food

has layers of muscles that contract causing food to break down (stomach twists and churns)

Gastric juices are produced in the stomach by the churning action. They contain three substances:

Mucus- protects the lining of the stomach from the acid and pepsin

Pepsin- an enzyme that begins the chemical digestion process

hydrochloric acid- a strong acid that makes the pepsin work (it needs acid to function)
- kills bacteria and helps break up the food

- **Food leaves the stomach as a thick liquid called chyme.**