

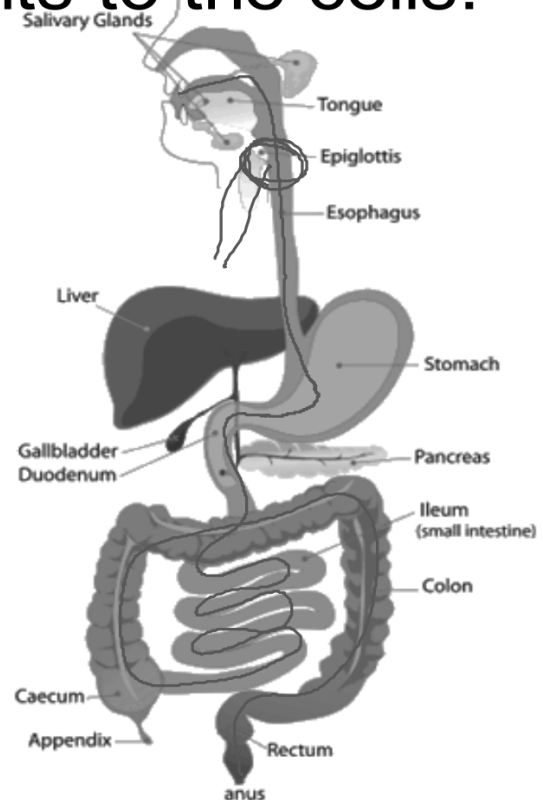
Human Body Digestive System

**How are organisms structured
to ensure efficiency and
survival?**

Explain how the digestive system transports nutrients to the cells.

Digestive System

–Breaks down food, absorbs nutrients into blood, and removes waste

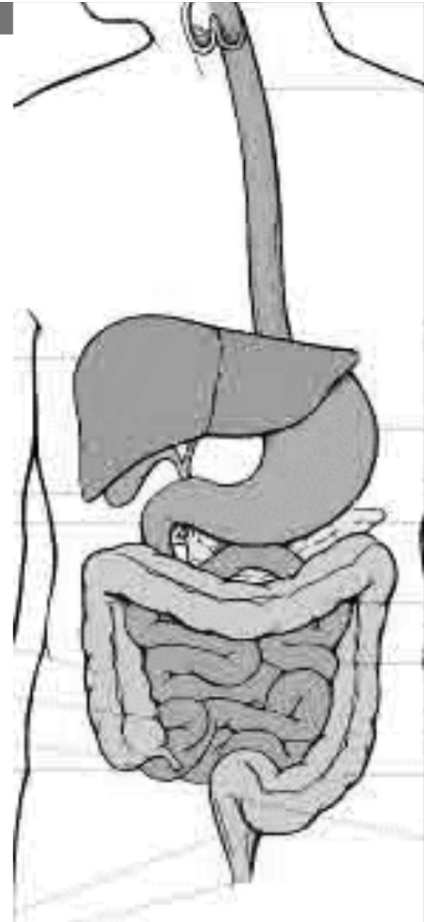


Mouth

1

**Teeth mechanically
break down food into
smaller pieces**

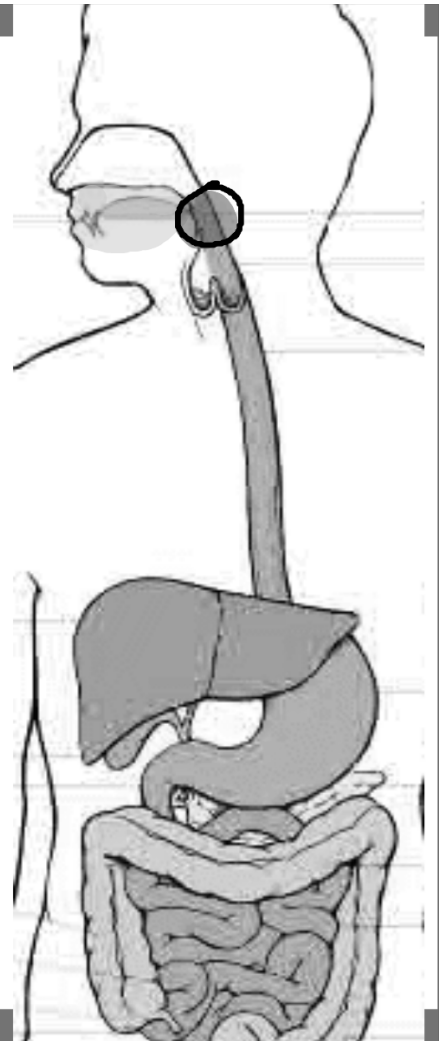
**Saliva has enzymes to
chemically break
down carbohydrates**





**The Pharynx (throat)
leads to the esophagus**

**The epiglottis keeps
food out of the airway to
the lungs**



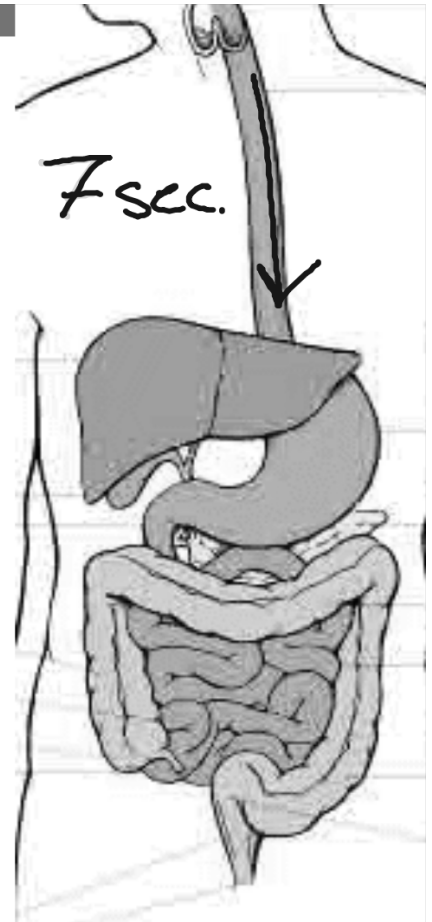


Esophagus

3

A tube that brings food to the stomach

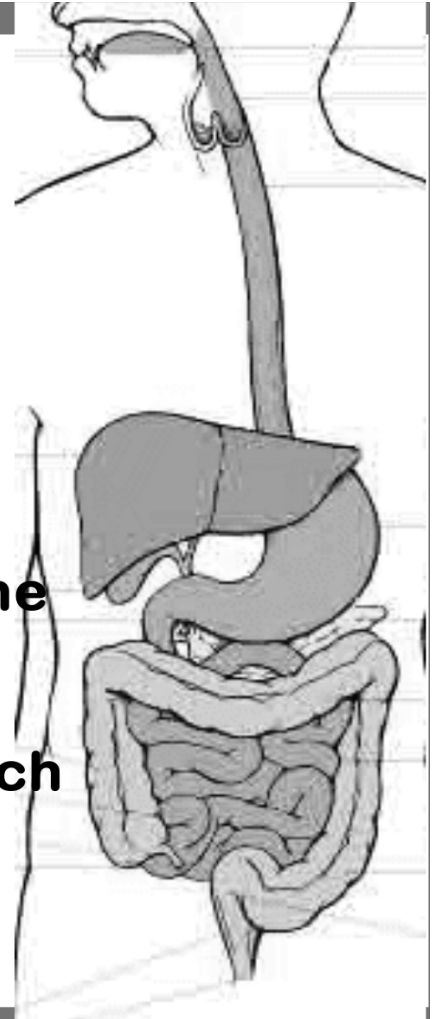
Made of smooth muscle and squeezes the food in a process called peristalsis



stomach

4

- Muscular saclike organ
- ^(enzymes) chemical and mechanical digestion take place here
- muscles squeeze the food and enzymes further break down the food
- acid kills bacteria
- when the food leaves the stomach it is called chyme



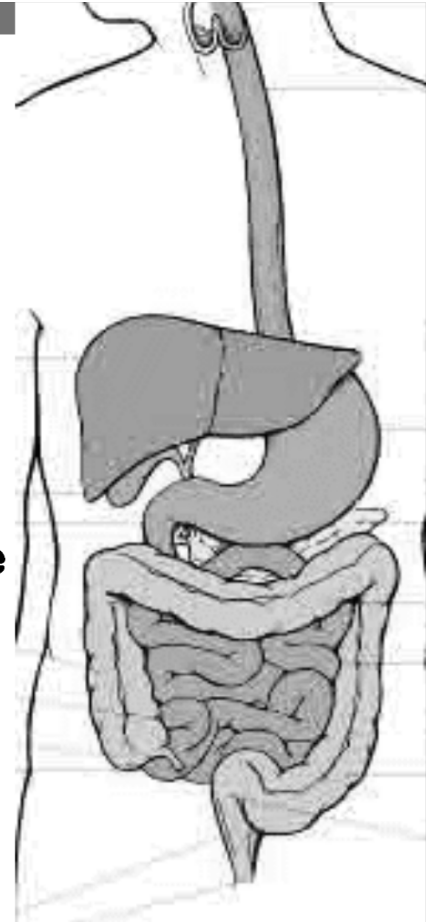


small intestine

- **Long tube like organ about 7m long and 2.5 cm in diameter**
- **digests and absorbs nutrients from chyme**
- **fluids from the pancreas contain enzymes for digestion and bicarbonate for neutralizing the acid**
- **has a large folded surface area with finger like projections called villi. These villi are covered with nutrient absorbing cells.**

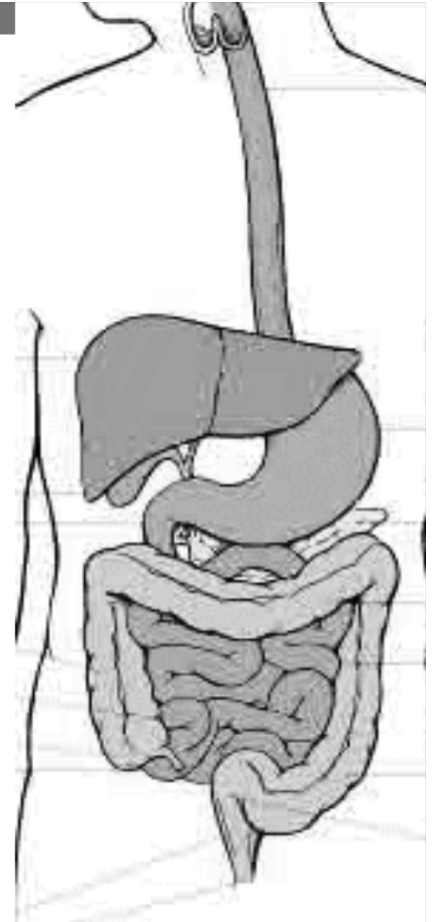
large Intestines

- **stores compacts waste by removing water**
- **between 5cm and 8cm in diameter and 1.5m long**
- **once water is removed, the waste is changed to a semi-solid material called feces or stool**
- **indigestible fiber from plants keeps the feces soft**



rectum / anus

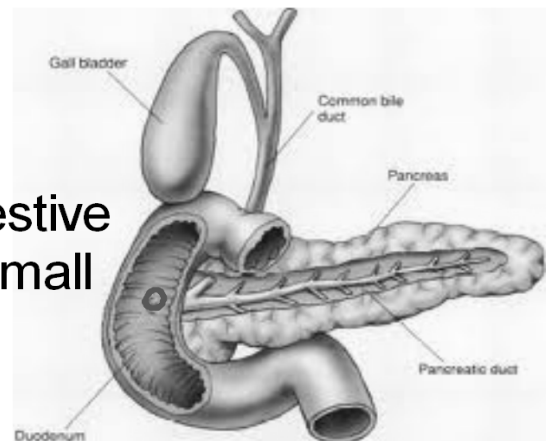
- **The final section of large intestines that stores feces**
- **the anus is the opening, to the outside, at the end of the rectum**



Other Organs

- Pancreas

- Pancreatic fluid enters the digestive system at the beginning of the small intestines
- The fluid has bicarbonate to neutralize the acid and protect the small intestine
- Produces insulin to regulate blood sugar



Other Organs

- Liver

- A large organ that makes bile to break down fats

- Stored in the Gall Bladder

- Stores nutrients

- Like glucose

- Breaks down toxins

- Like alcohol and other drugs

