**Digestive System**

* A group of organs that work together to digest food so that it can be used by the body
* Digestive tract is a series of tubelike organs

Digestive system includes:

1. Mouth – where digestion begins
2. Teeth – chewing breaks food into smaller pieces so that they are easier to digest
3. Molars – good for grinding food
4. Premolars – good for mashing food
5. Canines – good for shredding food
6. Incisors – good for biting and shredding food
7. Esophagus – long straight tube that the throat (pharynx) leads to. It squeezes the food mass with rhythmic muscle contractions called peristalsis, which forces the food into the stomach
8. Stomach – muscular saclike digestive organ. It squeezes the food with muscular contractions. As it squeezes, tiny glands in the stomach produce enzymes and acid which work together to break food into nutrients. Acid also kills bacteria that you might have swallowed. Through this process, the food mass is reduced to a soupy mixture called chyme. The food is released into the small intestine.
9. Small intestine – most digestion takes place after food leaves the stomach. The small intestine is a muscular tube, about 2.5 cm in diameter and about 6 meters long.

The inside wall is covered with fingerlike projections, called villi, which create more surface are. The villi are covered with tiny nutrient-absorbing cells. It is here that nutrients are absorbed into the blood.

1. Pancreas – when chyme leaves the stomach, it is very acidic. The pancreas makes fluids that protect the small intestine from acid. It is an oval organ located between the stomach and the small intestine.

The fluid from the pancreas flows into the small intestine and helps to digest the chyme. It contains bicarbonate to help neutralize the acid.

1. Liver – a large, reddish-brown organ that helps with digestion. It is located toward the right side, slightly higher than the stomach, and can be as large as a football.
* It makes bile to break up fat
* It stores nutrients that are not needed right away
* It breaks down toxins, including drugs and alcohol
1. Gallbladder – Bile, made in the liver, is temporarily stored in the gallbladder. Bile is squeezed into the small intestine, where is breaks apart large fat droplets for greater exposure to digestive enzymes.
2. Large intestine – the organ that stores, compacts, and then eliminates indigestible material from the body. It has a diameter of about 7.5 cm and is about 1.5 meters long. Materials that can’t be absorbed into the blood is pushed from the small intestine into the large intestine. Undigested material enters the large intestine as a soupy mixture. The large intestine absorbs most of the water in the mixture and changes the liquid into semisolid waste materials called feces.

Foods containing cellulose (whole grains, fruits, vegetables) cannot be digested. This is called fiber and keeps the material somewhat soft and keeps it moving through the large intestine. The rectum is the last part of the large intestine. It stores feces until it can be expelled through the opening called the anus. It takes about 24 hours for food to move through the digestive system.

Remember the digestive tract is what the food passes through: mouth, pharynx, esophagus, stomach, small intestine, large intestine, rectum, anus.

The liver, gallbladder, pancreas, and salivary glands are also part of the digestive system, but food does not pass through these organs.