

# Journey Through Your Child's Digestive System

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Your child's digestive system is a vital 'machine' that channels nutrients from foods to his entire body. A process called digestion allows his body to break down foods into their smallest parts so that his body can use them to nourish cells and provide energy.

The digestive system is composed of a series of organs, starting at the mouth and ending at the anus. Each organ has an important role in the digestive process. The salivary glands, liver, pancreas and gall bladder (accessory glands) secrete digestive juices or enzymes, which aid digestion as well.

Foods and fluids move along the digestive system with help from muscular contractions in the wall, known as peristalsis.

## Do you know?

- ▶ Your child's digestive system (from his mouth to his anus) can measure up to 9 meters long when he reaches adulthood.
- ▶ Food takes about 12 to 48 hours to travel through the digestive system.
- ▶ The surface area of the small intestine is roughly the size of a tennis court!
- ▶ Your child carries about 1kg of bacteria (good and bad) in his intestines.

Let's take a closer look at what goes on inside when your child eats his food:

### Mouth – Digestion Starts Here

- ▶ As he chews his food, saliva helps make the food soft and easy to swallow. His tongue pushes the mashed-up food (known as bolus) towards the back of his throat and into the opening of his esophagus.

### Large intestines – Digestion Ends Here

- ▶ This is where his body absorbs water. Water leaves the waste product as it moves along and it becomes more compressed. The waste product or stool can spend anywhere from ten hours to several days in the colon before the next bowel movement.
- ▶ Billions of bacteria, good and bad, also live here. Good bacteria such as *lactobacilli* & *bifidobacteria* help crowd out the bad bacteria (bacteria which cause illnesses). A healthy bacteria balance means that the good bacteria are able to overpower the bad bacteria.

### Esophagus

- ▶ Muscles in the walls of the esophagus slowly squeeze the food in a wavy way towards the stomach. This takes about 10 seconds.

### Stomach – Food Mixer

- ▶ The stomach mixes, churns and mashes together all the food. It does this with help from strong muscles in the walls. Gastric juices are also produced to aid digestion. These juices help kill bacteria that may be in the food, too.

### Small Intestine – Site of Absorption

- ▶ This long tube can stretch to about 22 feet long when your child reaches adulthood!
- ▶ It is lined with villi, finger-like structures which increase the surface area of the intestines to help the absorption of nutrients into the blood stream.
- ▶ Food spends about 1-6 hours here.

