

The Digestive System

... When you need your food

The story repeats itself every day ...

... You wake up in the morning and have your breakfast, then you go to school, study and play with your friends, and around noon you start getting hungry

Why ?

Your body and your mind need energy to do everything, so where does this energy comes from and how it gets to you limbs and your brain?

Food ... what is inside?

Food contains several different substances, like carbohydrates which brings you energy, proteins, vitamins and minerals to build up your muscles and skeleton, water to clean up your body from inside and let your blood flow...

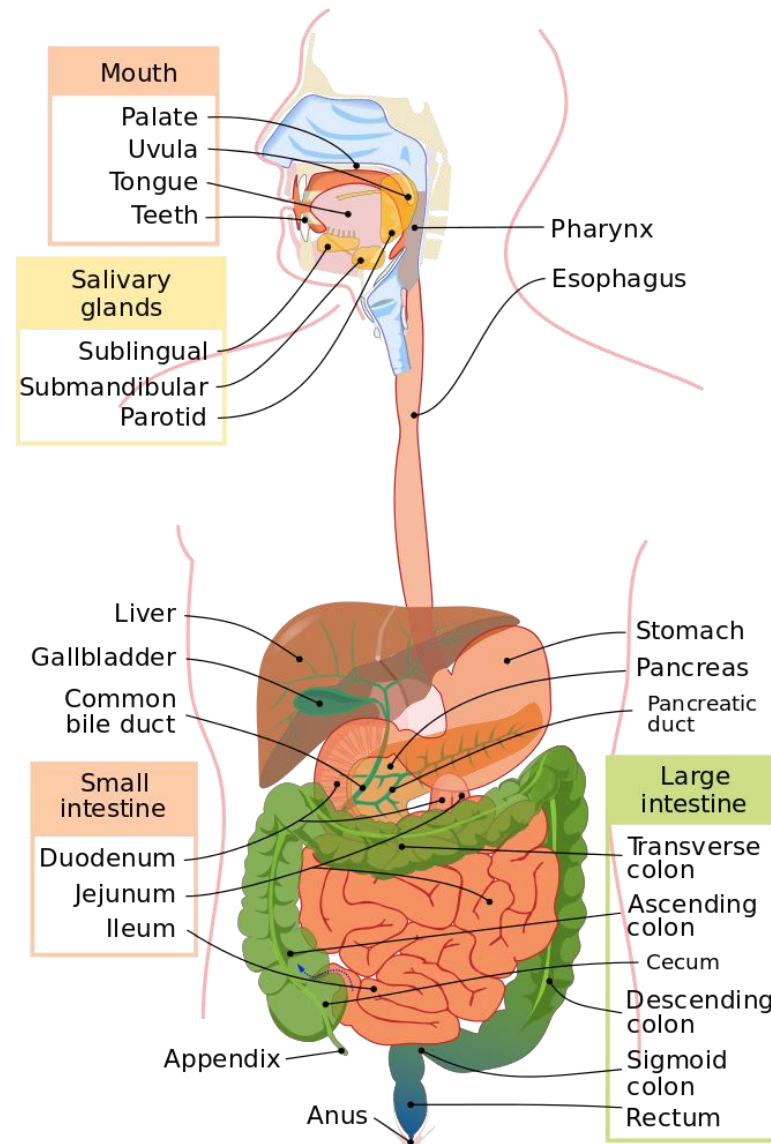
But food is not simple so you need to break down it into its basic nutrients before you can use them: this is the job of your digestive system!

So you bake your cake with flour, sugar, butter and eggs, then you eat it and the digestive system breaks the food into simpler nutrients, which are the substances which can be used directly by your body.

Let's have a look inside myself

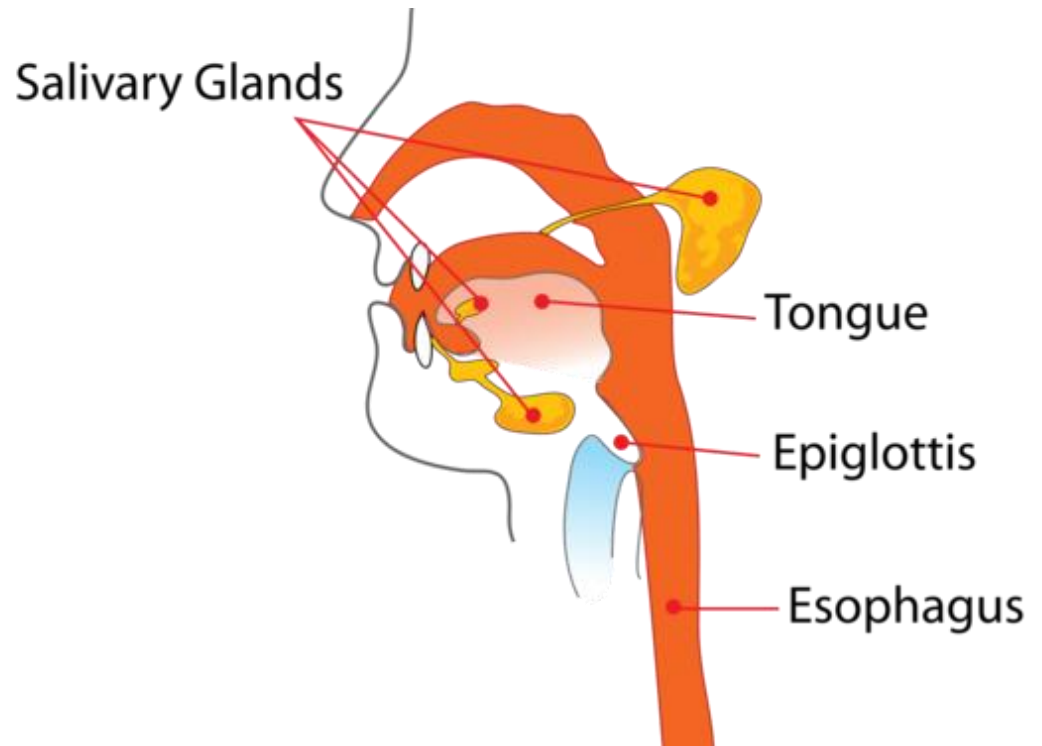
My digestive system is a complex one, with a lot of different parts, each of them with a specific function.

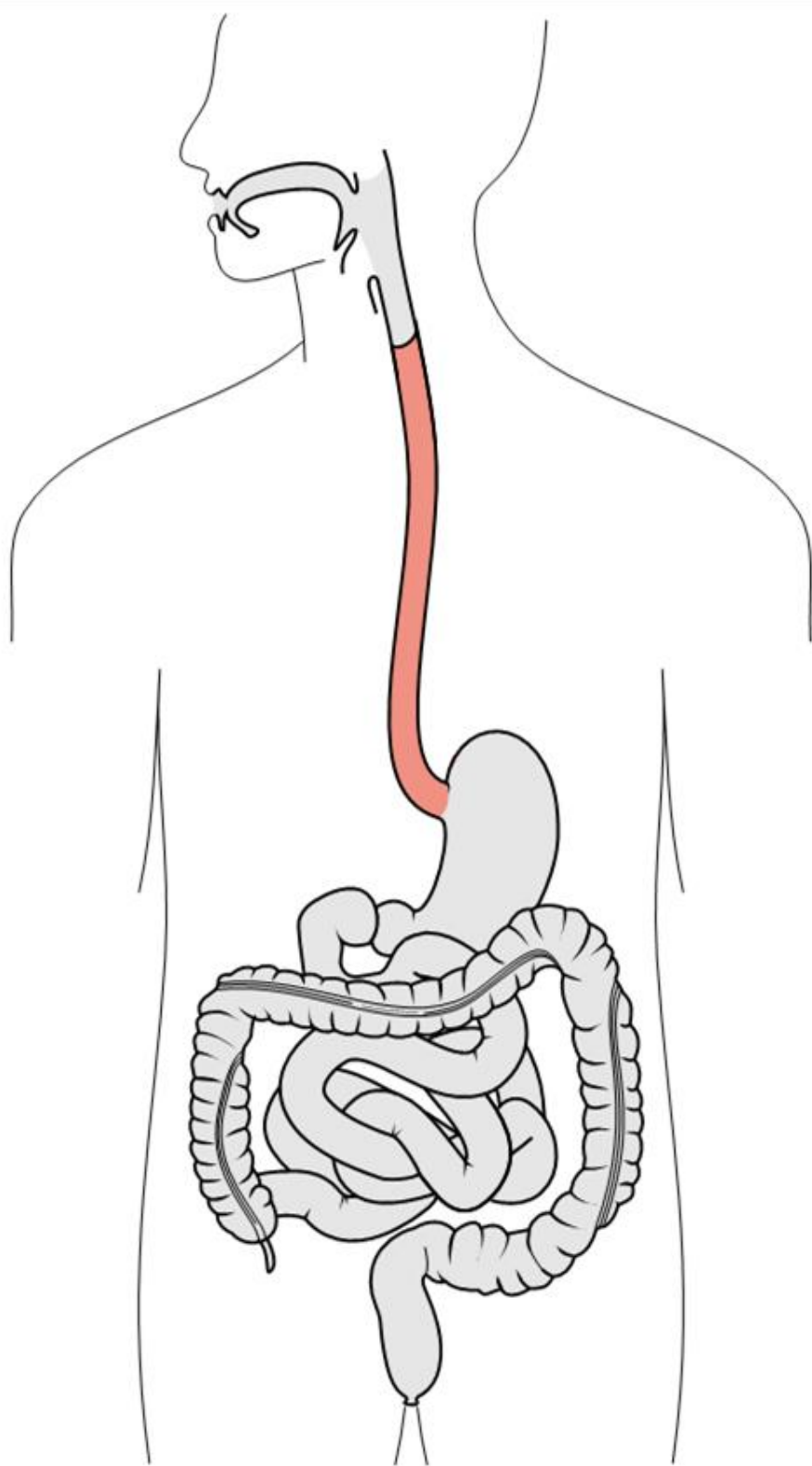
When I eat my pizza, it starts a long journey through my digestive system so I can get the energy and the other nutrients I need to live and function well, then what is left ends up into the toilet.



The journey begins in the mouth

Digestion begins in your mouth with teeth, tongue and saliva. The teeth chew and rip the food into smaller pieces, while saliva helps to dissolve the food adding enzymes. This processed stuff in the form of a small, round mass called a bolus, goes to the throat and enter the esophagus, a long tube that leads to the stomach.





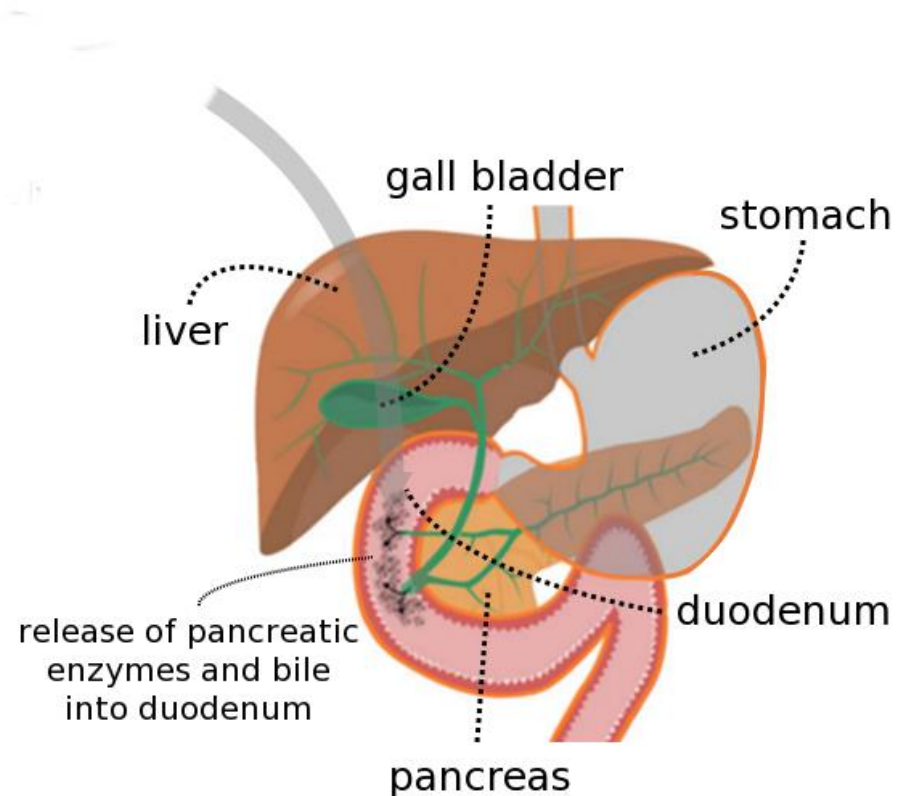
Through the esophagus into the stomach

The bolus travels down the esophagus by the action of peristalsis and it reaches the stomach, where gastric juices continue to digest the food while the muscles continue moving the stomach itself to keep mixing the food.

After a couple of hours the food leaves the stomach and enters in the small intestine.

The other organs in the middle

Liver and pancreas provide intestinal juices that help digestion. The liver makes bile, which is stored into the gall bladder until the small intestine needs it.



The long way through the intestine

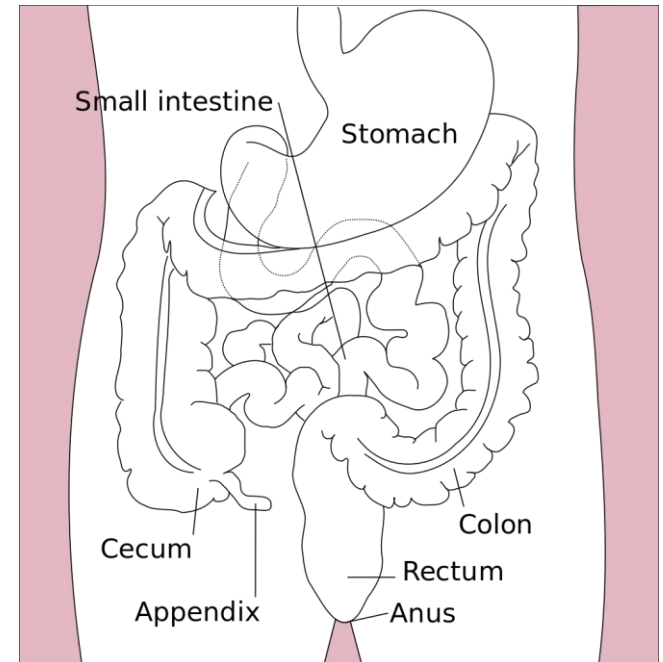
By the time the processed food reaches the small intestine, it has been transformed into a salted watery substance.

It takes several more hours for the food into the small intestine to be digested, so everything is broken down into amino-acids, simple sugars and fatty acids.

These nutrients are sent to living cells in the body by being absorbed into the blood vessels through the villi, and transported by the blood.

What is left now is undigested food and water which goes into the large intestine, where in 18 to 24 hours most of the water is absorbed.

The rest continues through the large intestine, turns into a solid waste that will be eliminated through the anus.



Food and health of the digestive system

The health of your entire body heavily depends on what you eat, but also your digestive system needs to be treated well.

We have a lot of examples, let's have a look at some of them.



Alimentary fibers help cleaning the intestine by sweeping its walls and villi, so please, eat a lot of fruit and vegetables and choose whole, brown bread!

A lot of fat in your food can taste good, but it takes so long to be digested ... so just a small bite to the juicy sausages.

Fizzy sweet drinks are bad for your stomach walls, while water is tasteless but (hopefully) much better.

