

## 4. The digestive system

### 4.3 Historical representations of digestion

4.3.3

## From the 18<sup>th</sup> to the 20<sup>th</sup> century

### SPALLANZANI

In the 18<sup>th</sup> century, Spallanzani studied digestion in animals but wanted to do research on humans. He decided to make himself vomit on an empty stomach, then filled a tube with the liquid he had harvested. He then put cooked, chewed beef into the tube and placed it in an oven to imitate the temperature in his stomach. After some 35 hours, the meat had lost all its texture.

### BEAUMONT



In the 19<sup>th</sup> century, Beaumont, an American surgeon, took advantage of the opportunity of having a patient, who had been wounded by a bullet in the abdomen, to explore things further. The wound healed but left a direct entry point into the stomach. Beaumont was then able to remove digestive juices and watch digestion as it was happening in the patient's stomach.

### MECHANICAL AND CHEMICAL TRANSFORMATION

Digestive juices were identified at the start of the 20<sup>th</sup> century and it was established that digestion is a series of mechanical and chemical transformation.