# alimentarium academy

### 4. The digestive system

### 4.4 Digestive phenomena

# <sup>4.4.9</sup> Diarrhoea

### WHAT IS DIARRHOEA?

Diarrhoea corresponds to a larger volume and higher frequency of stools than usual. To put this into numbers, diarrhoea is characterised by having more than 300 grams of stool volume in a day and to producing stools more than three times in a day. Such stools are generally liquid, but in some cases just soft. In extreme cases, a person with diarrhoea can lose more than 20 litres of fluid in a day. This is why it is very important to drink water. Dehydration can have serious consequences, especially for children and the elderly. In industrialised countries, diarrhoea rarely leads to death, but in developing countries, it is the second leading cause of death in children under 5 years of age.

## WHAT ARE THE CAUSES?

Diarrhoea is not a disease in itself, but a symptom that generally lasts a day or two. It happens for several reasons, but it is generally related to three abnormal processes:

- 1. The colon does not absorb enough of the liquid contained in the stools
- 2. It receives too much liquid, or
- 3. The intestinal transit time is too fast and does not allow enough time for the stools to dry out.

We drink about 2 litres of liquid per day and the digestive tract produces 7 to 8 litres of digestive juices. This means that 9 to 10 litres of liquid pass through the intestines each day. About 99% of this liquid is reabsorbed, mainly in the intestines; but if this amount decreases by 1%, for one reason or another, it can trigger diarrhoea.

There are multiple reasons for this. Diarrhoea can be the result of food poisoning. The ingestion of bacteria, such as salmonella in contaminated food, will cause this type of poisoning. Viral infections, such as gastroenteritis, may also be the source. Viruses destroy the cells of the intestinal wall and prevent the intestines from absorbing enough liquid. Food intolerance (such as lactose intolerance) and intestinal diseases (like colonopathy) may also be the cause. Anxiety, stress and other intense emotions can also trigger diarrhoea. Some medication (like antibiotics) can alter the intestinal flora and reduce absorption through the intestinal wall.