- 4. The digestive system
- 4.4 Digestive phenomena

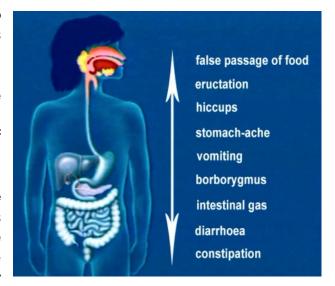
#### 4.4.1

# What is a digestive event?

#### **INCONVENIENCES RELATED TO DIGESTION**

A digestive event is an event related to normal digestive function. Everyone has experienced digestion-related inconveniences, for example when food goes down the wrong way, or when we get hiccups or have a stomach ache. These inconveniences are not signs of trouble in the digestive tract.

These digestive events must not be confused with eating disorders such as bulimia or anorexia. Eating disorders are considered diseases, whereas digestive events may well be unpleasant, but they do not have serious consequences.



#### THE CAUSES OF DIGESTIVE EVENTS

Several things can trigger digestive events. Firstly, they are often related to an unbalanced diet, for example too much fat, too much spicy food or not enough dietary fibre. Lifestyle can also play a role. For example, irregular meals, eating too quickly or even stress. Food poisoning can also sometimes cause digestive events, as can food intolerance. You may know people who cannot tolerate gluten or lactose for example. Then there are certain kinds of medication, such as anti-inflammatories, that can cause heartburn.

You will learn about some of these digestive events, but I am sure you already know some of them, or at least you know them in everyday language. Eructation, for example, simply corresponds to burping, and borborygmus to rumbling noises in the stomach.

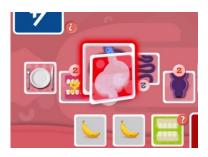
Once again, these events are related to the normal function of the digestive tract. Burping and passing wind are normal consequences of digestion and affect all of us.

### **DIGESTIVE EVENTS IN DIGESTIX & TUBIX**



Both DIGESTIX and TUBIX include digestive events. In DIGESTIX, you will see gas bubbles. You can even blow them up before they explode!

Digestive events occur in certain organs. For example, food going down the wrong way occurs in the pharynx, which is associated with the buccal cavity.



In TUBIX, this is why some events do not affect all the organs in the digestive tract. If you associate rumbling with the mouth, or vomiting with the colon, the event will not give the result you perhaps expected. However, if you associate constipation with the large intestine, your opponent will not earn any more points, unless they find a cure!

# What is a digestive event?

Digestive discomfort, such as hiccups or burping, means that there is a malfunction in the digestive tract.  O True O False	Avoiding very spicy food may help avoid digestive discomfort.  O True O False  What is another word for eructation?
Which of the following is not a digestive phenomenon?  O Hiccups	O Burping O Vomiting O Stomach ache
O Vomiting O Anorexia	Diarrhoea and constipation are not forms of digestive discomfort.
Anorexia and bulimia can have serious consequences.	O True O False
O True O False	What is another word for borborygmus?
Digestive discomfort is not serious.  O True  O False	O A rumbling noise O Vomiting O Wind
Drinking fizzy drinks may cause a	Anti-inflammatory medication may sometimes cause
O True O False	O a rumbling noise in the intestines O heartburn O burping

### **Answers**

# Digestive discomfort, such as hiccups or burping, means that there is a malfunction in the digestive tract.

#### O True

Wrong! That's not the right answer.

#### False

Well done! It indicates that the digestive tract is functioning normally.

# Which of the following is not a digestive phenomenon?

#### O Hiccups

Wrong! This phenomenon is linked to the digestive tract.

#### **O Vomiting**

Wrong! This phenomenon is linked to the digestive tract.

#### Anorexia

Well done! Anorexia is an eating disorder.

# Anorexia and bulimia can have serious consequences.

True

Well done! Unlike digestive phenomena, these eating disorders are regarded as illnesses.

#### O False

Wrong! That's not the right answer.

#### Digestive discomfort is not serious.

#### True

Well done! That's right.

#### O False

Wrong! That's not the right answer!

# Drinking fizzy drinks may cause a digestive phenomenon such as burping.

● True

Well done! That's right.

O False

Wrong! That's not the right answer!

# Avoiding very spicy food may help avoid digestive discomfort.

True

Well done! That's right.

O False

Wrong! That's not the right answer.

#### What is another word for eructation?

Burping

Well done! That's right!

**O Vomiting** 

Wrong! Try again!

O Stomach ache

Wrong! That's not the right answer.

# Diarrhoea and constipation are not forms of digestive discomfort.

O True

Wrong! That is not the correct answer.

False

Well done! That's right.

# What is another word for borborygmus?

A rumbling noise

Well done! That's right.

**O Vomiting** 

Wrong! Try again.

O Wind

Wrong! That's not the right answer.

# Anti-inflammatory medication may sometimes cause...

### O a rumbling noise in the intestines

Wrong! Try again!

heartburn

Well done! That's right.

O burping

Wrong! That's not the right answer.

### ACTT04C04L01\_A2

# Gaps to fill in on digestive phenomena

# [14-16 years old]

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1.	Food going down the wrong occurs when we swallow something awkwardly.
2.	Belching is when we expel from the digestive tract through our mouths.
3.	are caused by gastric distension.
4.	Stomach aches are pains.
5.	Vomiting is the of some of the contents of the stomach through the mouth.
6.	Rumbling is the gurgling made by the intestines or stomach during digestion.
7.	Intestinal gases from the digestive tract are expelled through the
8.	refers to stools which are more liquid, more plentiful and which occur more frequently than normal.
9.	refers to stools which are generally hard, less plentiful and less frequent than normal.

#### Answers

# Gaps to fill in on digestive phenomena

### [14-16 years old]

### Fill in the gaps:

- 1. Food going down the wrong way occurs when we swallow something awkwardly.
- 2. Belching is when we expel gas from the digestive tract through our mouths.
- 3. Hiccups are caused by gastric distension.
- 4. Stomach aches are abdominal pains.
- 5. Vomiting is the expulsion of some of the contents of the stomach through the mouth.
- 6. Rumbling is the gurgling noise made by the intestines or stomach during digestion.
- 7. Intestinal gases from the digestive tract are expelled through the anus.
- 8. **Diarrhoea** refers to stools which are more liquid, more plentiful and which occur more frequently than normal.
- 9. Constipation refers to stools which are generally hard, less plentiful and less frequent than normal.

#### ACTT04C04L01\_B

# Presentation on digestive events

[11-13 years old and 14-16 years old]

### Instructions:

Divide the class into groups.

Allocate a digestive event to each group.

#### Homework:

Each group watches the video corresponding to the digestive event they have been given.

#### In class:

If the class has access to a projector, begin by projecting the first video on digestive phenomena (optional).

Each group makes a three-minute presentation of one digestive event:

- First, the group asks the class guess which digestive event it is (they can mime, draw and speak, but must not say the name of the event!).
- Then the group presents what it has retained from the video (characteristics, causes, etc.).

ACTT04C04L01\_C

# Tooth decay

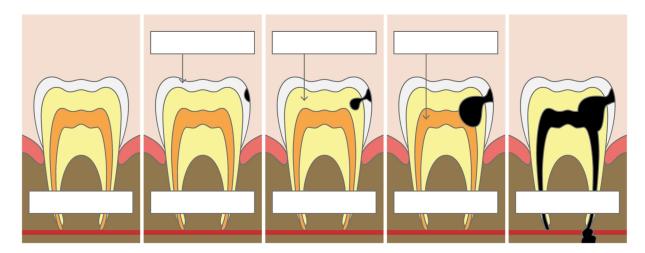
[11-13 years old and 14-16 years old]

Tooth caries, commonly known as tooth decay, is not linked with the normal functioning of the digestive tract; it is the result of an imbalance in dental plaque.

Dental plague consists of: food residue, saliva, bacteria (naturally present in the mouth).

Bacteria can grow if, for example, we do not brush our teeth. These bacteria can transform food residue into acids, in particular sugars and starches. These acids attack teeth leading to tooth caries.

Tooth caries develops in several stages. Add the following captions to the diagram below: superficial caries, pulp, perforating caries, enamel, early caries, dentine, penetrating caries, deep caries



The following explanations may give you some clues, but be careful, they are not in the correct order!

- Superficial caries attacks the enamel. Mechanical removal of the caries is no longer possible. The damaged enamel is slightly coloured, but does not cause any pain.
- Perforating caries is where the dental tissue has been destroyed. This is called necrosis.
- Early caries does not produce cavities. Acids have simply demineralised the enamel. This is the only form of caries that is reversible, provided there is an improvement in oral hygiene.
- **Penetrating caries** reaches the pulp. The pulp is still alive hence you may feel a sharp pain. This is called acute pulpitis or more commonly, toothache.
- **Deep caries** is when lesions have reached the dentine. The tooth starts to be sensitive and, as the dentine has low mineralisation, caries progresses rapidly. At this stage, the pulp has not yet deteriorated and, if the caries is treated, the tooth will remain alive.

#### Answers

# Tooth decay

[11-13 years old and 14-16 years old]

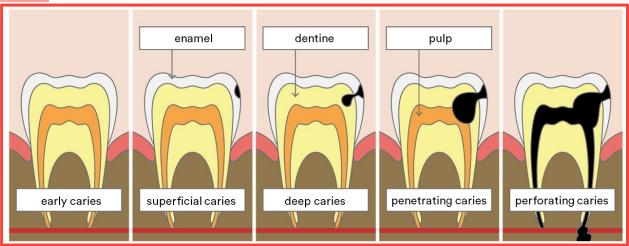
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#### **Answer:**



The following explanations may give you some clues, but be careful, they are not in the correct order!

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