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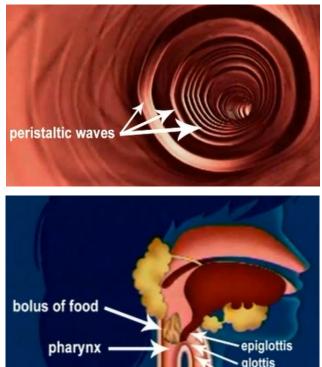
# 4. The digestive system

# 4.4 Digestive phenomena

# 4.4.6 Vomiting

# WHAT IS VOMITING?

When we vomit, some of the contents of the stomach are expelled by the mouth. This is a defence mechanism in case we swallow toxic substances. Vomiting can be manually triggered, but it is usually a reflex. This reflex first induces a feeling of nausea, or feeling sick, and then the stomach contents are expelled through an anti-peristaltic movement.



As mentioned previously, peristaltic waves are rhythmic contractions that help food move down through the digestive tract, but when we vomit, the contents of the stomach move up in the opposite direction, which is why we refer to an 'anti-peristaltic' movement.

When we swallow, the epiglottis turns down to block the glottis, which is the entrance to the larynx. There is a small leaf-shaped flap over the top of the glottis, hence the name epiglottis, from the Greek 'epi' meaning 'upon'.

When we throw up, a reflex closes the glottis to prevent the vomit from going into the trachea and then the lungs. Vomit typically contains food, along

with bile and more rarely blood.

Vomiting is not the same as regurgitation, which is a passive action corresponding to the contents of the stomach coming back up towards the back of the throat or the oral cavity.

larynx

trachea

# WHAT ARE THE CAUSES?

oesophagus

As with stomach aches, vomiting can be caused by various things. Food poisoning for example, or diseases of the digestive tract, such as a stomach ulcer or gastroenteritis, which is an inflammation of the wall of the digestive tract. Sometimes vomiting is related to balance functions inside the ear, such as motion sickness or vertigo. Side effects of certain medication may also trigger vomiting.

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#### 4.4.6 Vomiting Regurgitating and vomiting are exactly Vomiting is the body's defence the same phenomenon. against... **O False** O beneficial bacteria **O** True **O toxic substances** O raw food Regurgitation is when some of the contents of the stomach actively come Vomiting empties one of our organs of back up to the back of the throat or part of its contents. Which organ is it? into the buccal cavity. O The colon **O False** O The stomach **O** True **O** The lungs Vomiting has many different causes. Vomiting is generally... **O** False O a reflection **O** True **O voluntary** O a reflex Some medications may cause vomiting. **O** False How are the contents of the stomach **O** True ejected when we vomit? O By a peristaltic motion Illnesses of the digestive tract may O By an anti-peristaltic motion cause vomiting. O By a compression motion **O** False **O** True When we vomit, what stops liquid from entering the respiratory tract? O The epiglottis **O** The glottis

O The salivary glands

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# Answers

#### Vomiting is the body's defence against...

#### O beneficial bacteria Wrong! That's not the right answer.

#### toxic substances Well done! Ingesting a toxic substance may trigger vomitina

O raw food

Wrong! Try again!

#### Vomiting empties one of our organs of part of its contents. Which organ is it?

#### O The colon

Wrong! By the time food reaches your colon, the only way out is via your anus.

#### The stomach

Well done! Vomited food comes from your stomach.

#### **O** The lungs

Wrong! Your lungs contain air.

# Vomiting is generally...

### O a reflection

Wrong! Try again!

O voluntary Wrong! Although vomiting can sometimes be provoked, in most instances it is not.

) a reflex

Well done! Vomiting is a reflex action causing the contents of your stomach to be expelled.

#### How are the contents of the stomach ejected when we vomit?

#### O By a peristaltic motion

Wrong! This is what enables food to move through your digestive tract.

#### By an anti-peristaltic motion Well done! This is what enables the contents of your stomach to move up towards your mouth.

O By a compression motion

Wrong! That's not the right answer.

#### When we vomit, what stops liquid from entering the respiratory tract?

### The epiglottis

Well done! A reflex movement of your epiglottis closes your glottis to protect your respiratory tract.

# O The glottis

Wrong! The glottis is the opening which needs to be closed.

# O The salivary glands

Wrong! Your salivary glands produce saliva.

#### Regurgitating and vomiting are exactly the same phenomenon.

#### False

Well done! They are two totally different phenomena.

#### O True

Wrong! Try again!

#### Regurgitation is when some of the contents of the stomach actively come back up to the back of the throat or into the buccal cavity.

#### **False**

Well done! Unlike vomiting, regurgitating is a passive phenomenon.

#### O True

Wrong! That's not the right answer.

### Vomiting has many different causes.

#### **O** False

Wrong! Try again!

#### True

Well done! Vomiting may occur for many different reasons.

### Some medications may cause vomiting.

#### **O** False

Wrong! Try again!

#### True

Well done! Some medications may have side effects, such as vomiting.

### Illnesses of the digestive tract may cause vomiting.

#### **O** False

Wrong! Try again!

#### D True

Well done! Vomiting may be caused by a stomach ulcer or by gastroenteritis.