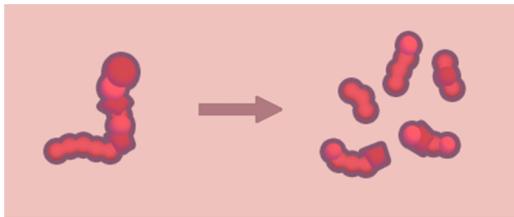


The stomach

THE GASTRIC GLANDS

The stomach has gastric glands integrated in its walls. These glands secrete highly acidic gastric juices that dissolve nutrients. Gastric juices contain **hydrochloric acid**, which acidifies food and destroys some of the bacteria in the stomach. They also contain many **enzymes** that trigger chemical reactions.



To give you an example, **pepsin** breaks down **proteins** into small **chains of amino acids** called **peptides**.

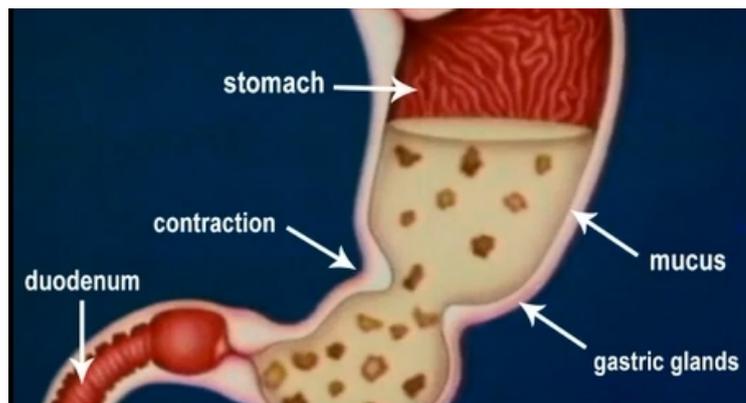


There is also **gastric lipase**, whose main role is to attack **complex lipids** and transform them into **simpler lipids**.

A gel-like substance called **mucus** covers the stomach wall. This mucus protects the stomach against the acidity of gastric juices, otherwise it would digest itself! The burning feeling in your throat after vomiting is due to the acidity of gastric juices.

MIXING

The stomach wall can contract and this mechanical action is called **mixing**. These contractions ensure that the bolus of food is mixed thoroughly with the gastric juices.



The **bolus of food** is transformed in a semi-fluid mass called **chyme**. This is highly acidic and is where some of the complex nutrients are transformed into simpler ones. The content of the stomach is continuously emptied out into the duodenum. In certain cases, chyme can remain in the stomach for 3 or 4 hours.

GASTRIC GLANDS IN DIGESTIX



In DIGESTIX, the 'gastric glands' and 'mixing' are both digestive pieces associated with the stomach. Gastric glands have two targets in the game. They transform proteins into small chains of amino acids, and complex lipids into simpler lipids.

The stomach

The stomach has gastric glands connected to each other by a duct.

- True
- False

What do gastric glands secrete?

- Gastric sugar
- Gastric juices
- Gastric garlic

Which characteristic enables gastric juices to dissolve food?

- Their bitterness
- Their acidity
- Their sweetness

What is the acid in gastric juices called?

- Chlorophyll acid
- Chaotic acid
- Hydrochloric acid

The enzymes in gastric juices trigger...

- physical reactions
- chemical reactions
- organic reactions

The stomach wall can contract to mix food together.

- True
- False

What do we call the mechanical process that combines food together?

- Churning
- Mixing
- Maxing

Answers

The stomach has gastric glands connected to each other by a duct.

True

Wrong! That's not the right answer.

False

Well done! Your gastric glands are integrated into the wall of your stomach.

What do gastric glands secrete?

Gastric sugar

Wrong! That's not quite right.

Gastric juices

Well done! That's right.

Gastric garlic

Wrong! Nice try, though.

Which characteristic enables gastric juices to dissolve food?

Their bitterness

Wrong! That's not the right answer.

Their acidity

Well done! This digestive fluid is very acidic.

Their sweetness

Wrong! That is not the right answer.

What is the acid in gastric juices called?

Chlorophyll acid

Wrong! Good try.

Chaotic acid

Wrong! Try again!

Hydrochloric acid

Well done! That's right.

The enzymes in gastric juices trigger...

physical reactions

Wrong! That's not right.

chemical reactions

Well done! That's right.

organic reactions

Wrong! Try again!

The stomach wall can contract to mix food together.

True

Well done! That's right.

False

Wrong! Try again!

What do we call the mechanical process that combines food together?

Churning

Wrong! Try again!

Mixing

Well done! Food is mixed to make breaking it down easier.

Maxing

Wrong! That's not the right answer.