Bitesize

Digestion and absorption

JAMILA   Mmmm! These homemade sausage rolls are delicious Garry! What's your secret?

GARRY   You've got to make sure you slice the garlic so thin that it liquefies in the pan with just a little oil.

JAMILA   Nice spot you picked here…

GARRY   "Nice"?! Look at the stars, the planets! Looks good enough to eat.

ALFRED   Hello Larry. Searching 'eat'.

GARRY   It's "Garry". And not now Alfred – I'm on a date.

ALFRED   And so is your food; with your digestive system!

First, your mouth breaks your food into smaller chunks. This gives the food a greater surface area to attack it with the carbohydrase enzymes in your saliva. This makes the food easier to swallow and digests the starch – from the pastry – into glucose!

GARRY   Riveting. Well, thanks for that Alfred but you're not-

ALFRED   Your food then travels down the oesophagus to get to the stomach. Your stomach has-

JAMILA   Acid!

GARRY   Don't encourage him.

ALFRED   Correct! Your stomach acid breaks the food down and makes sure your protease enzymes have an optimum pH. The protease attacks the protein in the sausage. There's also a mucus lining in there to stop the acid from burning the stomach.

GARRY   Hummus?

Bitesize

ALFRED   The liver creates bile; a yellowish-brownish liquid – and stores it in the gall bladder. Bile helps emulsify fats, which enables the lipase enzyme to break down the cheese you ate!

The pancreas produces digestive enzymes and sends them to the small intestine to mix with the food.

Most of the digestion happens here. The enzymes – carbohydrase, protease, and lipase – breaks down the pastry, sausage, and the cheese into glucose, amino acids, and fatty acids and glycerol, which then are absorbed into the blood stream. The sloppy waste that's left over has its water absorbed in the large intestine.

GARRY   OK Alfred, thanks. I think we know the rest.

ALFRED   This is sent to the rectum and stored there, until it's excreted from the…

JAMILA   Er… Oh, I just need the loo.

GARRY   She's taking her time…