How Your Body Breaks Down the Food You Eat

KS2 SCIENCE Ages 9-12 ⏰ 3 min read

Your Amazing Food Journey

Every time you eat a sandwich, apple, or pizza, your body goes to work breaking it down. This process is called **digestion**, and it happens in your **digestive system**. Your digestive system is like a long, twisting tube that runs from your mouth all the way to your bottom. It takes about **24 to 30 hours** for food to travel through the whole system.

Think of it like a recycling factory: just as a factory breaks down old materials into useful parts, your digestive system breaks down food into tiny pieces your body can actually use.

Step One: Chewing in Your Mouth

Digestion starts the moment you take a bite. Your **teeth** chew the food into smaller pieces, making it easier to swallow. At the same time, **saliva** (spit) is released from glands in your mouth. Saliva contains special chemicals called **enzymes** that start breaking down the food chemically. This is why chewing thoroughly helps your digestive system work better.

Step Two: The Stomach's Churning Action

Once you swallow, food slides down a tube called the **oesophagus** into your **stomach**. Your stomach is like a mixing bowl that churns and squeezes the food for **2 to 4 hours**. Your stomach produces **acid** and more enzymes that break down the food even further. The mixture becomes a soupy liquid called **chyme**.

Think of it like a washing machine: your stomach tumbles food around with chemicals, breaking it down into smaller and smaller pieces.

Step Three: The Small Intestine's Big Job

The real magic happens in your **small intestine**, which is surprisingly long—about **6 metres** coiled up inside you! Here, more enzymes break down the food completely. The walls of the small intestine absorb the useful nutrients—like **proteins**, **carbohydrates**, **fats**, and **vitamins**—into your bloodstream so your body can use them for energy and growth.

Step Four: The Large Intestine and Beyond

Anything your body couldn't use passes into the **large intestine**. This absorbs water and leftover minerals, then stores the waste as **poo** until you go to the toilet. The whole journey is a brilliant teamwork between your teeth, saliva, stomach acid, and intestines—all working together to fuel your body!

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